

Volume: 3 Issue: 3 April – June, 2016



The International Journal of
INDIAN PSYCHOLOGY



Person of the Month
Alfred Adler (1870-1937)

Editor in Chief:
Prof. Suresh M. Makvana, PhD
Editor:
Ankit P. Patel

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Volume 3

Issue 3, No. 3

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Chief Editor

Prof. Suresh M. Makvana, PhD

Editor

Ankit P. Patel

THE INTERNATIONAL JOURNAL OF INDIAN PSYCHOLOGY

This Issue (Volume 3, Issue 3, No. 3) Published, May, 2016

Headquarters;

REDSHINE Publication, 88, Patel Street, Navamuvada, Lunawada, Gujarat, India, 389230

Author Helpline: +91 76988 26988

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ISSN (Online) 2348-5396

ISSN (Print) 2349-3429

ZDB: 2775190-9

IDN: 1052425984

CODEN: IJIPD3

OCLC: 882110133

WorldCat Accession: (DE-600) ZDB2775190-9

ROAR ID: 9235

Impact Factor: 5.10 (2015) from the Research Bible

ISBN: 978-1-365-03419-0 (eBook)

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Price: 500 INR/- | \$ 8.00 USD

2016 Edition

Website: www.ijip.in

Email: info.ijip@gmail.com | journal@ijip.in

Please submit your work's abstract or introduction to (info.ijip@gmail.com | www.ijip.in)

Publishing fees, ₹ 500 OR \$ 15 USD only (online and print both)

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Message from the Desk of Editor

This gives me an immense pleasure to announce that ‘RED’SHINE Publication, Inc’ is coming out with its third volume of peer reviewed, international journal named as ‘The International Journal of Indian Psychology. IJIP Journal of Studies’ is a humble effort to come out with an affordable option of a low cost publication journal and high quality of publication services, at no profit no loss basis, with the objective of helping young, genius, scholars and seasoned academicians to show their psychological research works to the world at large and also to fulfill their academic aspirations.

The International Journal of Indian Psychology welcomes submissions that explore the social, educational and psychological aspects of human behavior as related to human. Because The International Journal of Indian Psychology takes a broad and inclusive view of the study of both psychology and social science, this publication outlet is suitable for a wide variety of interests. Appropriate submissions could include general survey research, attitudinal measures, research in which criminal justice practitioners are participants, investigations into broad societal issues, or any number of empirical approaches that fit within the general umbrella provided by the journal.

At last, our thanks go out to the members of the journal who have done their best to work at this collaborative effort. May you continue in this wonderful spirit, which, we are sure will sustain your efforts in the future towards enhancing and enriching this journal.

Prof. Suresh Makvana, PhD¹
(Editor in Chief)

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The present issue of the journal is edited & published by RED'SHINE Publication (A unit of RED'MAGIC Networks. Inc) at 86/Shardhdha, 88/Navamuvada, Lunawada, Gujarat-India, 389230

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Person of the Month: Alfred Adler (1870-1937)

Ankit Patel¹

Born	7 February, 1870 Vienna, Austria-Hungary
Died	28 May, 1937 Aberdeen, Scotland
Citizenship	Austrian
Known for	Individual psychology, The concept of the inferiority complex, President of the Vienna Psychoanalytic Society, 1910
Fields	Psychotherapist, Psychiatrist



Alfred Adler is known as one of the most influential thinkers in psychology. While he was initially a member of the Vienna Psychoanalytic Society, Adler eventually departed from Freud's theories and developed his own perspective, which he called Individual Psychology. He had a strong influence on a number of other eminent psychologists, including Carl Rogers, Abraham Maslow and Karen Horney.

Alfred Adler was an Austrian doctor and therapist who is best-known for forming the school of thought known as individual psychology. He is also remembered for his concept of the inferiority complex, which he believed played a major part in the formation of personality. Adler was initially a colleague of Sigmund Freud, helped establish psychoanalysis, and was a founding member of the Vienna Psychoanalytic Society. Adler's theory focused on looking at the individual as a whole, which is why he referred to his approach as individual psychology. Adler was eventually expelled from Freud's psychoanalytic circle, but he went on to have a tremendous impact on the development of psychotherapy. He also had an important influence on many other great thinkers including Abraham Maslow and Albert Ellis.

Alfred Adler was born in Vienna, Austria. He suffered rickets as a young child which prevented him from walking until the age of four. Due to his health problems as a child, Adler decided he

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Person of the Month: Alfred Adler (1870-1937)

would become a physician and, after graduating from the University of Vienna in 1895 with a medical degree, began his career as an ophthalmologist and later switched to general practice.

Adler soon turned his interests toward the field of psychiatry. In 1902, Sigmund Freud invited him to join a psychoanalytic discussion group. This group met each Wednesday in Freud's home and would eventually grow to become the Vienna Psychoanalytic Society. After serving as President of the group for a time, Adler left in part because of his disagreements with some of Freud's theories.

While Adler had played a key role in the development of psychoanalysis, he was also one of the first major figures to break away to form his own school of thought. He was quick to point out that while he had been a colleague of Freud's, he was in no way a disciple of the famous Austrian psychiatrist. In 1912, Alfred Adler founded the Society of Individual Psychology. Adler's theory suggested that every person has a sense of inferiority. From childhood, people work toward overcoming this inferiority by asserting their superiority over others. Adler referred to this as 'striving for superiority' and believed that this drive was the motivating force behind human behaviors, emotions, and thoughts.

Although Adler's psychological theory was developed nearly a century ago, many of his concepts are still brought to fruition through Adler University. His concepts based in social interest, social justice, equality, and the importance of education guide the Adler University's commitment to social change – from our curriculum, practica, internships, programming and experiential offerings for students, faculty and alumni – to our hundreds of partnerships at work with local communities to improve community mental health.

Although Adler's theory may be less interesting than Freud's, with its sexuality, or Jung's, with its mythology, it has probably struck you as the most common-sensical of the three. Students generally like Adler and his theory. In fact, quite a few personality theorists like him, too. Maslow, for example, once said that, the older he gets, the more right Adler seems. If you have some knowledge of Carl Rogers' brand of therapy, you may have noticed how similar it is to Adler's. And a number of students of personality theories have noted that the theorists called Neo-Freudians -- Horney, Fromm, and Sullivan -- should really have been called Neo-Adlerians.

And so the "positives" of Adler's theory don't really need to be listed: His clear descriptions of people's complaints, his straight-forward and common-sense interpretations of their problems, his simple theoretical structure, his trust and even affection for the common person, all make his theory both comfortable and highly influential.

TIMELINE

- 1870** Alfred Adler born on February 7th 1870
- 1888** Began his studies at the University of Vienna Medical School
- 1895** Received medical degree from the University of Vienna
- 1897** Married Raissa Timofeivna Epstein
- 1898** Established private practice in Vienna
-Birth of first daughter, Valentine
-Published two articles in Austria's "*Medical News Bulletin*"
- 1901** Second child, Alexandra, is born
- 1902** Published two articles in *Medical News Bulletin*
-Sigmund Freud invited Adler to join the fledgling Wednesday Psychological Society (later renamed to Vienna Psychoanalytic Society)
- 1904** Adler publishes his most important article to date, *The Physician as Educator*
-Converted from Judaism to Protestantism
-Birth of Kurt Adler
- 1905** Publication of *A Study of Organ Inferiority*
- 1909** Birth of Cornelia (daughter)
- 1911** Adler is expelled from the Vienna Psychoanalytic Society under Freud's impetus
-Adler forms his own group, initially called the Society for Free Psychoanalytic Inquiry
- 1912** Published *The Neurotic Constitution*
- 1913** Renamed his group The Society for Individual Psychology
- 1914** Published *Healing and Education*, edited by Adler
- 1916** Drafted as a military physician for the Austro-Hungarian Empire during World War I
- 1918** Discharged from military service, began emphasizing social feeling in writings
- 1922** Published *The Practice and Theory of Individual Psychology*
-Adler begins setting up educational consulting teams in child guidance for Vienna's public schools

Person of the Month: Alfred Adler (1870-1937)

1924

Became a professor at Vienna's Pedagogical Institute 1928 First lecture-tour of the United States

-Published *The Case of Miss R: The Interpretation of a Life Story*

1929

Became an adjunct professor at Columbia University, started to shift base of operations from Vienna to New York City

-Published *Individual Psychology in the Schools*

1931

Published *What Life Should Mean to You*

1932

Professor at the Long Island College of Medicine, Adler's first full-time academic position in the United States

1933

Published *Religion and Individual Psychology and Social Interest: A Challenge to Mankind*

1937

Died, May 28th, Aberdeen, Scotland

SELECTED PUBLICATIONS

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Adler, A. (1956). *The Individual Psychology of Alfred Adler*. H. L. Ansbacher and R. R. Ansbacher (Eds.). New York: Harper Torchbooks.

QUOTES

"It is easier to fight for one's principles than to live up to them."

"The chief danger in life is that you may take too many precautions."

"The only normal people are the ones you don't know very well."

"Exaggerated sensitiveness is an expression of the feeling of inferiority."

"Trust only movement. Life happens at the level of events, not of words. Trust movement."

"We must interpret a bad temper as a sign of inferiority."

"The greater the feeling of inferiority that has been experienced, the more powerful is the urge to conquest and the more violent the emotional agitation."

"It is the patriotic duty of every man to lie for his country."

"The educator must believe in the potential power of his pupil, and he must employ all his art in seeking to bring his pupil to experience this power."

"There is no such thing as talent. There is pressure."

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Internet Addiction and Psychological Well-being among Youth of Kashmir

Aasimeh Rehman^{1*}, Humera Shafi², Touseef Rizvi²

ABSTRACT

The present study was conducted with the aim to examine the relationship between internet addiction and psychological well-being among youth of Kashmir and to find out the difference in both addiction and psychological well-being among youth of Kashmir with respect to gender and residential status. 100 students studying in various colleges of two districts of Kashmir (Srinagar and Ganderbal) completed the Young's Internet addiction test (Young, 1998) and Ryff's Psychological well-being scale (Ryff, 1995). Results of the study revealed a significant negative correlation between internet addiction and psychological well-being among youth of Kashmir. Further it was found that there is significant difference in internet addiction among youth of Kashmir with respect to their gender, males were found to be high on internet addiction than their counter parts and no significant difference was found in internet addiction with respect to their residential status. Results also revealed insignificant difference in psychological well-being among male and female youth and regarding their residential status significant difference was found in psychological well-being, urban youth were found to be high on the levels of psychological well being as compared to rural youth. The study will be helpful in highlighting the effect of internet addiction among youth which is becoming a menace day by day for society.

Keywords: *Internet addiction, Psychological wellbeing, Youth.*

The Internet swiftly entered the life of the humankind in the 20th century. It took us less than ten years to face the fact of its spreading all over the world, including the developing countries. It has not only become source of information in the world, but also the most rapid means of communication. People from different countries have got an opportunity to communicate with each other in quite a short time. Internet is a technological tool which makes our life easier and has become an indispensable part of it while it's number of user population increases faster each day (Isman and Dabaj, 2004; Yapici, and Akbayin, 2012). The concept of internet addiction was

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first introduced in a pioneer study by Young (1996). Internet gaming disorder (also commonly referred to as Internet use disorder, Internet addiction or gaming addiction) is a pattern of excessive and prolonged internet gaming that results in cluster of cognitive and behavioral symptoms including progressive loss of control over gambling, tolerance, and withdrawal symptoms analogous to the symptoms of substance use disorder. As with substance related disorder, individuals with internet addiction continue to sit at a computer and engage in gambling activities despite neglect of other activities. They typically devote 8-10 hours or more per day to this activity and at least 30 hours per week. They often go for long periods without food or sleep (DSM 5). Internet causes an overall negative effect on daily lives and a break in the individual's psychological wellbeing. Studies about the reasons for internet addiction showed that characteristics like shyness, depressive signs and low self-esteem (Aydin and Sari, 2011) are attributed with inclination towards internet addiction (Yang and Tung, 2007). As addiction to internet increases the dimensions in wellbeing decreases (Waldo, 2014). Well-being is a positive and sustainable condition that allows individuals, groups or nations to thrive and flourish. Psychological well-being is about lives going well. It is the combination of feeling good and functioning effectively (Huppert, Baylis & Keverne., 2005). Students with higher levels of Internet addiction are more likely to be low in psychological well-being (Cardaks, 2013). Students who are addicted to internet usage have psychiatric symptoms such as Somatization, Obsessive Compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation and psychoticism more than students who are non addicted internet usage (Koc, 2011). Depression, anxiety, and stress were predicted positively in internet addiction (Akin and Iskender, 2011).

OBJECTIVES

1. To study the relationship between internet addiction and psychological wellbeing among youth of Kashmir.
2. To study the difference in both internet addiction and psychological wellbeing among youth of Kashmir with respect to their gender and residential status.

Hypothesis:

- H₀₁ There will be no significant correlation between internet addiction and psychological wellbeing among youth of Kashmir.
- H₀₂ There is no significant difference in internet addiction among youth of Kashmir as far as their gender is concerned.
- H₀₃ There is no significant difference in internet addiction among youth of Kashmir as far as their residential status is concerned.
- H₀₄ There is no significant difference in psychological wellbeing among youth of Kashmir as far as their gender is concerned.
- H₀₅ There is no significant difference in psychological wellbeing among youth of Kashmir as far as their residential status is concerned.

METHODOLOGY

Sample:

The present study consists of a sample of 100 participants taken from two districts (Srinagar & Ganderbal) of Kashmir province. An equal ratio of male and female participants, that is 50 males and 50 females were taken.

Description of tools:

Young's Internet Addiction Test (Young, 1998). This was adapted to evaluate respondent's level of internet addiction. It consists of 20 questions wherein each item is scored using a five-point Likert scale. It covers the degree to which internet use affect daily routine, social life, productivity, sleeping pattern, and feeling. The instrument has exhibited good psychometric properties in previous researches. The reliability for this questionnaire is 0.899 in Cronbach's alpha the higher the score the greater the level of internet addiction.

Ryff's Psychological wellbeing scale (Ryff, 1995): This scale is adapted to measure the psychological well beings of respondents. It consists of 18 items which measures six dimensions of psychological wellbeing (Autonomy, Environmental mastery, Personal growth, Positive Relations, Purpose in life, Self-acceptance) and each item is scored using a seven-point scale.

Statistical analysis:

Keeping in view the nature of research problem and to meet the objectives of the study the data collected was analyzed by using Statistical package for social sciences (SPSS v-20). Statistical techniques used for analyzing data were: Pearson's correlation coefficient and t-test. The statistical significance value was set at $p \leq 0.05$.

RESULTS

Table 1 Showing correlation between internet addiction and psychological well being among youth of Kashmir.

Variable	N	Mean	SD	r =
Internet addiction	100	45.31	14.17	- .218* (P=.030)
Psychological well being		83.3	11.40	

*Significant at 0.05 level of significance.

Table 1 reveals the correlation coefficient of internet addiction and psychological wellbeing among youth of Kashmir. Results revealed that there is significant negative correlation between internet addiction and psychological wellbeing as correlation coefficient ($r = - .218^*$, $P = .030$) is significant at 0.05 level of significance. In light of above empirical evidence the hypothesis no. H_{01} which states "There will be no significant correlation between internet addiction and psychological wellbeing among youth of Kashmir" stands rejected

Table 2 Showing comparison of mean scores of both internet addiction and psychological well-being among youth of Kashmir with respect to their gender.

Variable	N	df	Mean	t-value
Internet addiction	Male=50	98	50.16	3.626* (p < .001)
	Female=50		40.46	
Psychological well-being	Male=50	98	84.2600	0.841 ^{NS} (p = .43)
	Female=50		82.3400	

*Significant at 0.05 level of significance; NS = Not Significant.

Table 2 presents an overview of the t-value of both internet addiction and psychological wellbeing among youth of Kashmir with respect to their gender. As depicted by the table, Internet addiction among youth of Kashmir, with respect to their gender, differ significantly as the t-value 3.626* (p < .001) is significant at 0.05 level of significance, while psychological well-being among youth of Kashmir, with respect to gender, did not differ significantly as the t-value 0.841^{NS} (p = .43) is insignificant at 0.05 level of significance. It is evident from the table that males were high on internet addiction than their counter parts. In the light of above empirical evidence the hypothesis no. H₀₂ stands rejected and hypothesis no. H₀₄ stands accepted.

Table 3 Showing comparison of mean scores of both internet addiction and psychological well-being among youth of Kashmir with respect to their residential status.

Variable	N	df	Mean	t-value
Internet addiction	Rural=50	98	43.96	-.952 ^{NS} (p = .343)
	Urban=50		46.66	
Psychological well-being	Rural=50	98	80.54	2.48* (p = .015)
	Urban=50		86.06	

*Significant at 0.05 level of significance; NS = Not Significant

Table 3 presents an overview of the t-value of both internet addiction and psychological wellbeing among youth of Kashmir with respect to their residential status. As depicted by the table, Internet addiction among youth of Kashmir, with respect to their residential status, did not differ significantly as the t-value -.952^{NS} (p = .343) is insignificant at 0.05 level of significance while psychological well-being among youth of Kashmir, with respect to residential status, differ significantly as the t-value is significant 2.48* (p = .015) at 0.05 level of significance, urban youth were found to be high on the levels of psychological well being as compared to rural

youth. In the light of above empirical evidence the hypothesis no.H₀₃ stands accepted and hypothesis no. H₀₅ stands rejected.

DISCUSSION AND CONCLUSION

The present study examines the internet addiction and psychological wellbeing among youth of Kashmir.

- Findings revealed that there is significant negative correlation between internet addiction and psychological wellbeing among youth of Kashmir. This finding is consistent with previous studies that examined psychological wellbeing and internet addiction. For example, Cardak (2013) found that students with higher levels of Internet addiction are more likely to be low in psychological well-being and Waldo (2014) also found significant relationship between internet addiction and psychological well-being.
- Results also revealed that there is a significant difference in internet addiction among youth of Kashmir and insignificant difference in psychological wellbeing among them as far as their gender is concerned. It was found that males are high in internet addiction as compared to their counterparts. The first part of this finding is not consistent with other studies done by Xu, Zhang & Liu (2011), Waldo (2014), Kawa & Shafi (2015) in which it was found that there is no significant difference in internet addiction as far as gender of youth is concerned. The second part of this finding is consistent with the previous literature (Winefield, Gill, Taylor & Pilkington, 2012); Sharma, 2014) which also shows insignificant difference in psychological wellbeing between male and female youth.
- Results also revealed that there is no significant difference in internet addiction among youth of Kashmir as far as their residential status is concerned. The result is not consistent with the study conducted by Kawa and Shafi (2015) which shows a significant difference in internet addiction among rural and urban youth. As far as psychological well-being is concerned results showed a significant difference between rural and urban youth of Kashmir. Urban youth were found to be high on the levels psychological well- being as compared to rural youth of Kashmir. This finding is not consistent with other studies done by Khan, Gangadhara , Lakshm & Gangadhara (2010) which shows insignificant difference in psychological well-being as far as residential status of youth is concerned.

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Effect of Media Violence on Aggression, Attitude and Emotions of Adults

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Keywords: *Media, Violence, Aggression, Attitude, Emotions, Adults.*

Current scenario of crime rate in India is increasing day by day. Increasing of crime rate in India depicts an extremely poor condition of our country law and order. According to national crime bureau (NCRB), ministry of home affairs, Government of India, during 2010, a total of 67,50,748 cognizable crimes comprising 22,24,831 Indian Penal Code crimes (IPC) crimes and 45,25,917 special and local laws (SLL) crimes were reported that there was an increase of 1.1% over 2009 (66,75,217). According to Indian Penal Code crime rate has increased by 3.9% over 2009. Crime rate from 1953-2011 shows that crimes such as dacoity and burglary/house breaking has been decreased by 59 years but crimes such as murdered, rape, kidnapping and abduction, robbery and riots have been increasing day by day. Murder has increased by 250.0% (from 9,802 in 1953 to 34,305 in 2011), rape 873.3% (from 2,487 in 1971 to 24,206 in 2011), kidnapping and abduction by 749% (from 5,261 in 1953 to 44,664 in 2011) and riots by 233.7% (from 20,529 in 1953 to 68,500 in 2011).

In the recent year society has seen a notable increase in the rate of youth crime. Everyone can easily see on the headlines of newspapers like “youth involve in chain snatching” or “Youth involve in kidnapping of businessman son”, college girl friend beaten up by gang of youth in Uttar Pradesh”. These shocking news comes as a headlines of a newspaper on a daily bases. According to the National Crime Records Bureau, 44% of the arrested criminals belong to the age group of 10 to 30 years, which is the youth (as per the 2011 statistics). The crime rate has been increasing drastically which range from thefts to kidnapping, murders, rape, and sex scandals involve such people. From the above discussion it has been found that youth and crime is not a new phenomenon. Society has seen both in past as well as in present where youth crime rate increases very drastically. The cases found like murders, theft, sexual involvement, robbery, attempt to murder, kidnapping, cheating etc. All these are the crimes done by the youth. In the further studies there will be the discussion on the crimes, types of crimes, causes of crimes, about how media effects the youths and about the reports on youth violence and more on.

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What is crime?

A crime is an illegal act that is against law for which someone can be punished by the government.

- i) The word 'crime' is origin of viz ; 'crimian' which means charge or 'offence' crime is a social fact.
- ii) According to Austin crime is an act or omission which the law punishes.
- iii) According to Sir William Blackstone defined crime as 'an act committed or omitted in violation of public law forbidding or commanding it'.
- iv) According to Blackstone crime is an act omitted or committed, in violation of a public law, either forbidding or commanding it, a breach or violation of some public right or duty to due to a whole community considered as a community.

Types of crime:

As we all know crime is an act which is against law and order. Thus there are various types of crime such as:

i) Crimes against persons:

It is also known as personal crimes which include, rape, robbery, murders, aggravated assaults, kidnapping, abducting etc.

In the United States personal crimes are basically related with the young, urban, poor, and racial minority people who commit all these types of crime more than all other types of people.

ii) Crimes against property:

These types of crime are those crimes which include theft of property without harming the body, such as robbery, burglary, auto theft, and arson.

Like the personal crimes these crimes are also committed by young, poor, racial minorities and urban people than others.

iii) Crime against morality:

It is also known as victimless crimes as there is no complaint or victim. Illegal gambling, illegal drug use and prostitution come under this type of crimes.

iv) White-collar crime:

These are the crimes which are committed by the people of high social status in context to their occupation. Examples are embezzling (of money from one's employer), tax evasion, insider trading and other violation of income tax. These types of are generally the least investigated and least prosecuted.

v) Organised crime:

It is the crimes which are committed by the structured groups typically which involves the distribution of illegal goods and services to others. Examples are drug trade, illegal gambling, prostitution, money launderings, or weapons smuggling.

Crimes which are being committed more by young adolescents:

According to the report by Global Youth Justice in 'Making the Time for Juvenile Crime' there are some crimes which are mostly committed by young adolescents:

- (i) Theft/ Larceny-
It includes shop lifting, stealing a bicycle, stealing from backpacks and lockers.
- (ii) Alcohol offenses-
In this type of crime under purchase or possession, underage consumption of alcohol, providing alcohol to underage person, possessing an open container in public/cars.
- (iii) Disorderly conduct-
It includes fighting in a public place, cursing at a teacher, flashing, mooning and indecent exposure.
- (iv) Simple assault or battery-
It includes bullying when it amount to assault, child/parent physical disagreements, shoving or pushing a person.
- (v) Possession of marijuana-
It includes Possessing small amounts of marijuana in a public place.
- (vi) Tobacco offenses-
It includes illegally purchasing tobacco, chewing or smoking tobacco at school, providing or enabling youth to use tobacco.
- (vii) Traffic violations-
It includes speeding or failing to yield, not wearing a seat belt, riding in the back of a picking truck.
- (viii) Harassment-
It includes bullying, making telephone calls without good reason, insulting or provoking a disorderly response.

Causes of crime:

As the technologies are developing day by day and due to this the urban cities are gradually developing in terms of better lifestyles, facilities, income and standard of living, people are increasingly migrating towards the urban areas which causes misbalance in fulfilment of basic needs or resources caused by overpopulation. This imbalance lead to the various competition, insecurity or rivalry among people which rises the crime in urban areas and the biggest irony is that cities or urban areas are becoming the 'hub' of crime and violence which are increasing drastically day by day. These raise of crime in Indian cities may be due to the lack of adequate manpower, technology, equipment and a big reason is political will.

i) Poverty:

It is the main reason for committing the crime or in other words there is a close relationship between poverty and crime. Due to poverty the poor people are not able to live a standard life and are not able to fulfil their basic needs like food, shelter,

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- clothes. Thus all this contributes or force them to commit crime. Poverty leads to commit crime like robbery as they find it a easier way to steal than the other ways.
- ii) **Lack of education:**

It is also a great reason for committing a crime. As people are not well educated to find a job to work and earn money to fulfil their basic needs and requirement which leads them to for stealing money and committing a crime.
 - iii) **Lack of unemployment:**

It has been found that crime rates are higher due to unemployment, poverty. As unemployment refers to jobless which shows that the individual is not earning money due to which the person is not able to live a standard life or fulfil his or her family members basic needs and this forces the individual to steal the money and commits a crime.
 - iv) **Family factors:**

It is also an important factor for increasing of crime. If there will a poor parenting style it will definitely result in the raising of crime and this factor may include about how family members behave with each other, about how much attention is given and about attitudes.

“According to leading psychiatrist, the lack of adequate opportunities frustrates young people up to that extent that they use any method possible to attain success. Many cases like sexual assault and rapes go unreported due to which youngsters feel free to commit the same crime again and again. Even the judicial system shows leniency towards the accused.”
 - v) **Peer group pressure:**

In the life of a person peer group plays a very important role and it strongly influences a decision to commit crime. For example, young boys and girls who do not fit into expected standards of academic achievement or participate in sports or social programs can sometime become lost in the competition. Children of families who cannot afford adequate clothing or school supplies can also fall into the same trap.

Researchers believe these youth may abandon schoolmates in favour of criminal gangs, since membership in a gang earns respect and status in a different manner. In gangs antisocial behaviour and criminal activity earns respect and street credibility.
 - vi) **Substance abuse:**

Addiction to alcohol or some other substances are the major reason for committing of crime mainly by youth.

Media

Media effect on youth: In the recent year with the rise of mass media, media has a tremendous impact on our society. Let us take some examples that media has a great influence on us. Such as do you feel like to work in the serial as a lead role? , after watching a stunt in a movie do you feel like attempting it? , do you feel like play a role or being a detective after seeing a suspense movie?

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If your answer will be in 'YES' then it shows that media has a great influence on the society because media affect the way we think act and think. Thus question arises by many researchers, scholars, critics about the various effect media has on the society and as well as on the individual. These effects are very strong, has direct effect in the both positive and negative terms. The most important reason of media effect is mainly Television is affecting our society strongly in today's scenario.

According to a report "Youth spends on an average four hours per day".

Television is mainly influence the society through the stories about violence and this comes under the negative impact. As on the television, in today's scenario there are lots of serials based on the crime and violence, news, movies which shows the violence.

Social learning theory:

In violence we can say that social learning theory applies very extensively.

According to Albert Bandura's theory people learn the things by observing others. Observational learning could not occur unless cognitive processes were at work.

Social learning theory is the result of modelling oneself in response to the expectation of others. Behaviours and attitudes develop in response to reinforcement and encouragement from the people around us. Social learning theorists recognized that childhood experience is important; they also believe that the identity people acquire is formed more by the behaviours and attitudes of others.

According to social learning theory, people engage in crime because of their association with others who engage in crime. Their criminal behaviour is reinforced and they learn beliefs that are favourable to crime. For example- social learning theory plays important role in childhood and when a child sees that bullying, shop lifting, theft bring more amount of social power, money, and materialistic gain then automatically a child is more prone to undergo delinquent activity because of the reinforcement attach to it rather than punishments. Manifestation of this behaviour over and over again throughout his life leads to a learning of delinquent activity and preferences of peer and companions who helps him encouraging such activities .As a consequence, these individuals come to view crime as something that is desirable; at least justifiable in certain situations. It is done through association with exposure to others.

Social learning theory postulates that there are three mechanisms by which individuals learn to engage in crime: differential reinforcement, beliefs, and modelling.

(i) Differential reinforcement of crime:

Differential reinforcement of crime means that individuals can teach others to engage in crime by reinforcing and punishing certain behaviour. Crime is more

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likely to occur when it: 1) is frequently reinforced and infrequently punished. 2) Results in large amounts of reinforcement (such as money, social approval, or pleasure) and little punishment and 3) it is more likely to be reinforced than alternative behaviours.

(ii) Beliefs favourable to crime:

On top of reinforcing criminal behaviour, other individuals can also teach a person belief that is favourable to crime. A child learns from his childhood that behaviour that criminal behaviour reinforces more rather than punishment.

(iii) The imitation of criminal models:

Behaviour is not only a product of beliefs and reinforcements or punishments that individuals receive. It is also a product of the behaviour of others, especially if it is someone that individuals who witnesses someone they respect committing a crime, who is then reinforced for that crime is then more likely to commit a crime themselves.

REVIEW OF LITERATURE

In the present scenario the media violence has affected our young people and society very badly through various way in which television is the main source which has a great impact on our society today. Thus it is a very hot question and the researcher has found various researches, articles and debate has been done on this topic of media- crime serial effect.

The present chapter reports researches done in the area. Also media reports published time to time have been included in review of literature as they too through life on the current scenario. Also not many researchers have been done in this area as per the knowledge of the researcher.

Does the violence that children observe in television programs, movies and video games lead to behave aggressively?

This is a burning question of today, but it was also of great interest 50 years ago when psychologists led an experiment to determine how kids learn aggression through observation.

Bandura and his colleague's in 1961 done an experiment 'Bobo Doll experiment' tested on 36 boys and 36 girls from the age between 3 to 6 years old. It was found that the children learn social behaviour such as aggression through the process of observation learning through watching the behaviour of another person.

This study has important implications for the effects of media violence on children"

Crime and youth:

A Research done on the 'Involvement of youth attitude in crime' in the year 2013 by Konch and Borbora. In this study 400 samples age group of 18-35 years in four jails of upper Assam – India.

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In this study it has been found that there are various risk factors which are responsible for committing crime like media impact, neighbourhood, poor economic condition etc all these factors are related to each other. Research work admitted that some television programme and motion pictures have now come to be blamed for many youth crimes. It has been found that the media plays another major role for the construction of attitudes, behaviour and physical changes of youth.

In 2012, the media violence commission of international society for research on aggression (ISRA) present a report that 'over the past 50 years, a large number of studies conducted around the world have shown that watching violent television, watching violent films, playing violent video games increases the likelihood for aggressive behaviour.

In 2009 policy statement on media violence, the American academy of paediatrics said, "Inclusive research shows that media violence can contribute to aggressive behaviour desensitization to violence, nightmares and fear of being harmed.

In another study 'Television violence and aggression: A Retrospective study in 2008' by Slotsve et al. In this study a survey was administered on the sample of 130 undergraduate students. In this it was found that participants who watched television programs that were violent in nature had thoughts of or would emulate the (violent) behaviour from the television programs. This correlation supports social learning theory.

In another study in the year 2006 American Medical Association present a study on 'Short-term and long-term effects of violent media on aggression in children and adults' the sample were children younger than 18 years and adults. It was found that short-term effects of violent media were greater for adults than for children whereas the long-term effects were greater for children than for adults. The result also showed that there were overall modest but significant effect sizes for exposure to media violence, on aggressive behaviours, aggressive thoughts, angry feelings, arousal level and helping behaviour.

In 2002, a report by the US Secret Service and the US department of education, which examined 39 incidents of targeted school shootings and school attacks from 1974 to 2000 in US, found that 'over half of the attackers demonstrated some interest in violence through movies, video games, books and other media.

In another meta-analysis by Paik and Constock in 'The effects of television violence on antisocial behaviour' conducted in 1994, examined 217 studies concerned with the impact of media violence on aggressive behaviour, with 85% of the sample in the age range 6-12 year. The authors concluded that there was a significant positive correlation between exposure to media violence and aggressive behaviours, regardless of age.

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From another cross-sectional studies by Paik and Constock in 'The effects of television violence on antisocial behaviour' in 1994 find that there is a positive correlation between media violence and various measures of aggression- for instance, attitudes and beliefs, behaviours and emotions such as anger. The effects of violent behaviours (such as assault and homicide), though, are rather smallest($r = 0.06$).

According to a meta- analysis in 1991 by Wood, Wong and Chachere on 'the effects of media violence on viewers' which involves 28 studies of children and adolescents exposed to media and observed in free social interaction, concluded that exposure to media violence increased aggressive behaviours towards friends, classmates and strangers.

According to another a longitudinal study conducted in the year 1977 by Huesmann and his colleagues, 'Early exposure to T.V violence predicts aggression in adulthood. The study was conducted on the 557 children age from 6- 10 years. In this study it was revealed that early childhood exposure to TV violence predicted aggressive behaviour for both males and females in adulthood.

Media reports on crime and young adults:

Hindustan times, sep.03.2013, published an article 'Crime shows masking the society a better place'. In this article it was reported that now days there are many crime shows based on crimes which has a good TRP rate and the details of these crime serials helps the viewers to get a peek into criminal minds which helps us to stay alert but long exposure to crime may bring fear of unsafe society. It may bring fear in kids and youngsters.

Tanay (2012) said in psychiatric times that "Whenever you will turn on the television you will find violence, you go to movie and there also you will find violence. Reality is fully distorted and if we will live in a fictional world, then the fictional world become our reality. Thus violence in the media has been increasing and reaching proportions that are dangerous"

Debates on crime and society:

According to the debate done by Yahoo in (2013) on 'how does the media effect the society'. Debater explains about how media affects society by telling that the influences of television can be seen by looking on that an average American watch over 8 hours of TV a day, 'according to that debater 'media affect how we learn about our world and interact with one another.

According to another debate done on the "does television have a malign influence on society: violence and crime- does TV watching increases crime and violence rate?" in 2013. It has been found that around 56% of people have given their responses 'NO' and around 44% people have said 'YES' it promotes violence and crimes.

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The above discussion shows that few researches have been done on the effect of media on youth violence but none of these studies have been carried out in India.

Thus this area needs lots of research. The present research is only a first step in the direction by the researcher due to paucity of time this research is limited to aggression level of qualitative data based on the findings the researcher plans to take the study further in near future.

METHODOLOGY

Objectives

- (i) To study the effects of crime serial on the level of aggression on young adults.
- (ii) To study the effect of crime serial on the level of emotions on young adults.
- (iii) To study the attitude towards crime serial.

Variables:

Independent variable: Crime clips shown to the participants.

Dependent variable: effect on the level of aggression and on various emotions on young adults.

Design of the research:

In the present study the researcher employed the Pre-test and Post-test design to measure the effect of crime serial on the level of aggression and various emotions on young adults.

Sampling group and sampling procedure:

In this study non-probability sampling was employed by the researcher and panel of guides. Due to paucity of time incidental sampling was employed in this study. The total 30 female Sample were taken from the Amity University. The students were Graduate and Undergraduate students enrolled in their respective programs.

Measures (Tools):

Buss and Perry Aggression Questionnaire scale was used to measure the aggression level on youth. This scale was designed by Arnold Buss and Mark Perry in 1992. The aggression questionnaire contains 29 items in which the participants were asked to give the rank to each item on the basis of seven- point Likert-type scale to indicate the extent to which each items describe their aggression. The seven point Likert -type scale ranges from extremely uncharacteristic to me (1) to extremely characteristics to me (7).

The Rating Scale was used to measure the level of emotions in which there are total 8 emotions. The participants were asked to rate each emotions in the rating scale on the basis of five- point Likert-type scale to the extent to which the 8 emotions describe their present feeling. The five point Likert-type scales Range from not at all (1) to very high degree (5).

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Semi- Structure Interview Schedule (SSIS) was used to know about the knowledge regarding the crime serials. The SSIS contains eight open-ended questions related to participants in which they have to response according to their knowledge.

The tools used in the present study were selected for the final study after it was assessed by panel of guides and experts. A small pilot study was conducted in order to test the tools.

Procedure:

In the present research the researcher has taken the sample of 5 students from Amity University on which the researcher conducted the pilot study. In the pilot study the participants were shown some crime clips and were asked to respond on what emotions they were feeling and on the basis of this pilot study a crime clip was selected according to their response along with the eight emotions which were evoked in most participants. Another tool Buss and Perry Aggression Questionnaire were selected and then a Semi- Structure Interview Schedule was prepared with the help of panel of guides and experts.

Before conducting the research a demographic details were taken from the each participants. Then to know the effect of media violence pre and post Aggression Questionnaire along with the rating scale of emotions was individually administered on the gap of 3 days on the sample of 30 female students age from 18-25.. Following to that an Interview was taken from the participants with the help of Semi-Structure Interview Schedule in which certain questions related to crime serials were asked to respond.

After administering these tools and conduction of the study participants were free to leave their feedback relating to their experience throughout the study.

Data Analysis:

In this study the researcher calculated the mean of both Pre and Post Aggression Questionnaire then to know whether there is a relation between the pre and post Aggression Questionnaire the t- test was performed. With the help of t- test the researcher found that whether the result is significant or not.

In the rating scales of emotions again the mean was calculated and then to know the whether there is relation between pre and post rating scale of emotions the t-test was performed.

For the Semi-Structure Interview Schedule the researcher with the help of guide content analysis were performed to found the various categories and to know the knowledge of young adults regarding the crime serials.

DISCUSSION AND INTERPRETATION

Present research study the level of aggression, various emotions regarding the effects of crime serials and to study about the attitude of young adults by the semi-structure interview schedule regarding crime.

Table 1 Showing Pre and Post-test effect on aggression level

		Mean	N	Std. Deviation	Std. Error Mean	t	df	Sig.
Pair 1	pre_physical	44.7667	30	8.41871	1.53704	1.508	29	NS
	post_physical	41.1333	30	12.14775	2.21787			
Pair 2	pre_verbal	19.3333	30	6.59327	1.20376	-1.297	29	NS
	post_verbal	20.8667	30	6.30125	1.15045			
Pair 3	pre_angerr	32.7333	30	8.19560	1.49630	.747	29	NS
	post_angerr	31.5000	30	8.48020	1.54827			
Pair 4	pre_hostility	27.5667	30	8.95846	1.63558	.588		NS
	post_hostility	26.6667	30	9.51707	1.73757		29	

In the present research after examining the pre and post effect of crime serials on the level of aggression it was found that there was no significant difference in the mean of the pre physical, verbal, anger, and hostility and in the post physical, verbal, anger, hostility. **Table 1** show that there is no effect of crime serials on the level of aggression of young adults. One of debate conducted by debate.org also supports the present findings according to the debate.org in 2013 on 'Does the media cause violence' it was found that over 63% of the population says 'No' media does not cause violence whereas only 37% population was agree to that media causes violence. Probable reasons behind the findings may be that the sample size taken in the present research was very small i.e. 30 in order to reject the null hypothesis of the present research. Another reason for in significant result was time duration. As during reviewing the literature it was observed that in most of the media violence and aggression is either longitudinal, or has a large sample size. But in this research due to paucity of time duration for crime clip for generating aggression was very less. Another reason is that the sample taken for the present study is homogenous that is only females due to which there are not many differences in responses. Generally males are more aggressive and also the protagonist in most of the crime

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serials including the present clipping. Another possible reason for insignificant result is that the crime clip was very scary, full of thrilled and full of suspense which instead of developing aggression it generates the hatred feeling, sad and disgust feeling.

Table 2 Showing Pre and Post-test effect on emotions

		Mean	N	Std. Deviation	Std. Error Mean	t	df	Sig.
Pair 1	pre_fear	1.5000	30	.93772	.17120	-3.395	29	.002
	post_fear	2.5667	30	1.30472	.23821			
Pair 2	pre_advent	2.8000	30	1.24291	.22692	2.088	29	.046
	post_advent	2.1333	30	1.38298	.25250			
Pair 3	pre_hate	1.7000	30	1.17884	.21523	-3.806	29	.001
	post_hate	2.9333	30	1.43679	.26232			
Pair 4	pre_interested	3.7333	30	1.11211	.20304	2.617	29	.014
	post_interested	3.1000	30	1.24152	.22667			
Pair 5	pre_curious	3.4000	30	1.27577	.23292	.909	29	.371
	post_curious	3.1667	30	1.28877	.23530			
Pair 6	pre_anxiety	1.9000	30	1.09387	.19971			
	post_anxiety	2.8667	30	1.30604	.23845	-3.293	29	.003
Pair 7	pre_sad	1.7667	30	1.04000	.18988	-4.481	29	.000
	post_sad	3.2667	30	1.48401	.27094			
Pair 8	pre_disgust	1.6000	30	1.13259	.20678	-6.033	29	.000
	post_disgust	3.2000	30	1.60602	.29322			
	pre_anger	1.9333	30	1.48401	.27094			
Pair 9	post_anger	3.7000	30	1.46570	.26760	-5.227	29	.000

Pre and Post-test effect on the rating scale of **emotions**:

After examining the effect of crime serial on the level of various emotions the result shows that in (**Table 2**) there was a difference between pre and post scores on fear, adventure, hate, interested, curious, anxiety, sad, disgust, anger but there is no significant difference for the emotion pre and post of curious. The crime clip which was shown to the participants were based on the ‘serial murder’ in which the culprit was a ‘Man eater’ which brings the emotions like hate,

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fear, anxiety, anger, sadness, disgust, and adventure like emotions while and after watching the crime clip. Another reason is that the female sample size, as females got scared easily, an afraid of horror things than males. According to a study done in 2011 by Galli, Wolpe and Olten on 'Sex difference in use of anticipation brain activity to encode emotional events' the sample was 30 males and 30 females and the result found was showed that the mere anticipation of something bad was enough to kick women's brain into action- but not males. In this research it was also found that woman got more scared during horror films than man do.

Qualitative study of young attitude through semi- structure interview schedule: In the present study a semi-structure interview schedule was conducted and certain information's regarding crime serials was collected from each participant individually and through content analysis the result were obtained.

Table 3- Showing Reasons for interest in watching crime serial.

CONTENTS	TOTAL	PERCENTAGE
To know what happens really	11	29.72%
Don't like watching	7	18.91%
To know result, culprit punishment, justice and types of crime	6	16.2%
How cases solved, suspense, curiosity and evils deed	6	16.2%
To be alert and updated	3	8.1%
Miscellaneous (thinking, adventure, crime laws etc.)	5	13.5%
Total	38	100%

With reference to the first question about what makes interest in watching these crime serials the answer from the **Table 3** reveals that: **29.72%** of the participants watch serials in order to know what is happening in reality. According to researcher observation most of the participants were very keen to watch crime serial name 'Nithari Kand' as it was based on reality which was very famous. The most of the participants were interested in watching crime because they are either from psychology background or mass communication background who likes to know what reality behind all these crime is and what is going on criminal minds. **18.91%** of the participants don't like to watch crime serials. The probable reason is that they are students of Amity University where there are lots of pressures for studies due to which they don't get time to watch crime serials. According to researcher observation most of the participants don't like to watch because they are not real and they feel disgusted. **16.2%** of the participants like to watch because they want to know the result, about how culprit punishes, justice, about types of crimes and suspense, curiosity evils deed respectively. According to researcher observation the probable reason may be that most of the participants are either of mass media students, law student, or of psychology student and they get to learn through these crime serials about the crime, criminal

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minds etc. **8.1%** of the participants like to watch because they help to be updated and alert. The probable reason may be that the participants most of the participants are living independent life so they always keep themselves updated in order to be safe from becoming victim. **13.5%** of the participants watch because they it gives adventure to them, help to know about crime laws and about the thinking of criminal minds. According to researcher observation most of the students are extrovert by their personality and extroverts are most likely to be adventurous (Eysenck & Eysenck, 1975-1994 extroverts are adventurous in their personality).

Table 4 Showing About how they feel when they read/see crime.

CONTENTS	TOTAL	PERCENTAGE
Sad and disgust	13	34.21%
anger	7	18.42%
To punish by rules and laws	4	10.52%
Frustrated and annoyed	2	5.26%
Miscellaneous	9	26.31%
Total	35	100%

With reference to the second question about how they feel when they read/see about crime the answer from the **Table 4** reveals that: **34.21%** of the participants feel sad and disgust when they read or see about crimes. The reason behind the response may be the sample size of present study which was only 30 females and they are more sensitive, they easily get upset, disgust, and sad by these crimes. Another possible reason is that most of the crimes are related to females like rape, assault, harassment, kidnapping, molesting etc which frustrated and annoy females and they feel sad disgust by the crimes. **18.42%** participants feel anger when they see or read about crimes. The probable reason may be because they are girls and they are more sensitive than males. **10.52%** and **5.26%** participants feel that the culprits should be punished by rules and they feel frustrated annoyed respectively. According to researcher observation most of the crime cases are related to females due to which they feel frustrated and want to live life without any fear so they feel like to punish them and finish them by laws and rules. **26.31%** participant feel worried, terrified and hate while reading and watching about crime. According to researcher observations the possible reason may be that they feel worried of being victimised by the criminals or they may be get attacked by the criminals.

Table 5 Showing about how they feel after watching these crime serials.

CONTENTS	TOTAL	PERCENTAGE
Sad and disgust	14	34.14%
Bad, hatred, tensed, worried, pathetic and make fools	8	19.48%
Angry and irritated	4	9.76%
alert	2	4.87%
Miscellaneous (panic, upset, emotional)	13	31.70%
Total	42	100%

With reference to the third question about how they feel after watching these crime serials and the **table 5** shows that **34.14%** of the participants feel sad and disgust after watching these crime serials. The reason behind these responses is may be again as for the above question that is the sample size for this research is 30 females who are more sensitive by emotions. **19.48%** and **9.76%** of the participants feel like irritated, tensed, worried, make fools and angry after watching these crime serials. According to researcher observation most of the crime serials are of pathetic as it shows the psychic and sic mind of the criminals. Another possible reason may be that they are not real sometimes and sometimes they show real stories by exaggerating it in a negative way that they feel irritated. **4.8%** of the participants feel alerted. The possible reason may be that it shows about criminal minds, types of crime. **31.70%** of the participants feel panic, upset and emotional. According to researcher observation the clipping which was shown to the participants were based on man eaters who have murder many children's after raping them and harassing them due to which participants feel upset for their parents and for them. Another reason for panic may be because in thr clip the culprit has eaten the body parts of the children's.

Table 6 Showing you like watching/ reading about crime.

CONTENTS	TOTAL	PERCENTAGE
Yes (awareness and self-defenses)	17	56.67%
No	7	23.33%
Not much	6	20%
Total	30	100%

With reference to the fourth question about them like watching/ reading about crime and from the **table 6** it reveals that: 56.67% of the participants like to watch and read about crime. The reason behind the responses is that the today's generation due to increasing rate of crime towards woman they want to be more alert and updated. Woman's like to watch these serials in today's scenarios it helps to know about how culprit commit crimes against woman and what to do to be on safer side. According to the researcher main reason behind the responses is that the females

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are becoming more independents in today's life. They want to aware and to be alert. **23.33%** of the participants don't like to watch or read about crimes. According to researcher observation most of the participants hate watching or reading about crime serials because they feel disgusted and sad as they are not real and they feel that they are cheating them and making fool of them. **20%** of the participants like to watch but not much. The possible reason is may be that they are students and they don't get enough time to watch after studying or they are not very much interested in watching crime serials whole day.

Table 4.7 Showing: Sources of information.

CONTENTS	TOTAL	PERCENTAGE
Newspapers/TV serials/ news on TV	28	62.22%
Social media	10	21.74%
movies	2	4.44%
Miscellaneous (neighbours, magazines)	5	11.11%
Total	44	100%

With reference to the fifth question about what are the sources for them for information and from the **table 7** it shows that: **62.22%**, **21.74%** and **4.44%** of the participants for them the sources of information regarding crime are from newspaper, television, social media and movies respectively. The reason behind is that young generation likes to be updated and aware about crimes. In today's scenario almost in every family there is at least one TV or computer thus either through social or media or through television news they know about the various crimes. For the **11.11%** of the participants sources of information are from neighbours, magazines.

Table 8 Showing: Crime serial as a catalyst in increasing crime rate.

CONTENTS	TOTAL	PERCENTAGE
Yes (to some extent)	17	56.69%
No (they are for awareness)	8	26.67%
May or may not	5	16.67%
Total	30	100%

With reference to the sixth question about that is crime serial are plays as a catalyst in increasing crime rate and **Table 4.8** shows that: **56.69%** of the participants feel that crime serials plays as a catalyst in increasing crime rate. The main reason behind yes is that according to the Bandura social learning theory people learn things by observing others. Another possible reason may be that crime serials help criminals in providing new ideas of committing crime. **26.67%** of the participants respond that no it creates awareness rather than increasing crime rate. The reason for the no response is that it depends on the people how they perceive things as they all are aware of what is real and what is fiction. According to Tanay (2012) said in Psychiatric Times that reality is fully distorted and if people live in a fictional world, then the fictional world become our reality. That is why violence in the media has been increasing and reaching proportions that are

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dangerous. 16.67% of the participants says that it may or may not plays as a role of catalyst in increasing crime rate.

Table 4.9 Showing about awareness of various laws enforced in society.

CONTENTS	TOTAL	PERCENTAGE
yes	21	70%
Some of them	6	20%
No	3	10%
Total	30	100%

With reference to the seventh question about are they aware of various laws enforced in the society and the answers from the **Table 4.9** showing that: **70%** of the participants are aware of the various laws enforced in the society. The reason behind is that the participants are from the middle upper background and studying in Amity University where many subjects helps in bringing awareness, knowing about laws. Another reason is may be that the females are becoming more independent and they want to be updated and alert by knowing about various laws, to be on safer side. Another reason is that the most of the participants are pursuing psychology and mass communication courses where to know about various crimes and laws are important. **20%** of the participants are somewhat aware of various laws. **10%** of the participants are not aware of various laws enforced in the society.

Table 4.10 Showing: Do shows teach something other than instigating fear.

CONTENTS	TOTAL	PERCENTAGE
Yes	13	41.94%
Aware and safe	11	35.48%
Fear	3	9.68%
No	3	9.68%
Total	30	100%

With reference to the eighth question about do serials teach them other than instigating fear and from the **Table 4.10** it was revealed that: **41.94%** and **35.48%** of the participants have responded that yes they teach other than something and they make aware, safe respectively. The reason for 'yes' may be because they get to know about laws. It was observed that most of the participants like to watch these serials because they get to know about reality about criminal minds. **9.68%** of the participants has responded each for no and they instigate fear. After obtaining response the possible reason is may be due to the crime clip which were shown to them were very scary and in that case the justice is still awaiting by the parents of victims. Another possible reason may be that the clip shown to them was based on owner killing which is scary.

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Effect of Spirituality Based Intervention on Domestic Violence Survivors

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ABSTRACT

Spirituality is considered culturally competent therapeutic intervention for domestic violence survivors. Limited number of studies have specifically emphasized at their experiences and needs. Women with abusive life partners use various strategies to cope, deal and heal from the physical and psychological violence. It is reported that their belief in a higher power is integral to their healing. Thus to study the role of spirituality as a tool for healing among domestic violence survivors, a sample of 50 married women who survived domestic violence were examined. For this purpose, the Revised Conflict Tactics scale (CTS-2; Straus, Hamby, Boney-McCoy & Sugarman, 1996); Daily Spiritual experiences Scale (DSE; Underwood & Teresi, 2002) and Beck Depression Inventory for depressive symptoms were used. Results indicate significant role of spirituality in healing women survivors. The majority reported that spirituality or God was a source of strength or comfort for them. Extent of spiritual involvement indicated increased psychological well-being and decreased depression.

Keywords: *Spirituality; Domestic violence; Physical and Psychological violence.*

Over forty percent Indian women are reported to be a victim of domestic violence. As found in India's third national family health survey (NFHS-III) report which is almost half of the population. Violence in the domestic area is usually perpetrated by males who are, or who have been, in positions of trust and intimacy and power. They could be husbands, boyfriends, fathers, fathers-in-law, brothers, uncles, sons, or other relatives.

Domestic violence affects the physical and mental health of females and is proven in every society in the world. According to the World Health Organization, globally 29% to 62% of women have experienced physical or sexual violence by an intimate partner. The United Nations defines violence against women as "any act of gender-based violence that results in, or is likely

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to result in, physical, sexual or mental harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life."

Domestic violence in most cases is committed by men against women. Women can also be violent, but their actions account for a small percentage of domestic violence. Thus in context to atrocities against women they need to be empowered through education, employment opportunities, legal literacy, and right to inheritance. According to WHO (World Health Organization) research violence against women is undoubtedly a universal problem but there are regional patterns in its prevalence. It finds that women in Africa are almost twice as likely to experience violence than women in Europe - a particularly striking finding given that 'women' are defined in the study as females aged 15 and over suggests that there are regional patterns in its prevalence. It finds that women in Africa are almost twice as likely to experience violence as women in Europe.

There is now a growing awareness and re-awakening in healthcare, and in particular rehabilitation, to authentically distinguish between the science of curing disease and the spiritual practice of healing persons. The healing paradigm offers a model which focuses on those aspects of the person which must be addressed.

Factors contributing to Domestic violence

Some of the major factors that are attributable to domestic violence are lower levels of education or illiteracy; experience or witness to family violence in past; antisocial personality disorder; alcoholism or use of drugs; multiple partners or suspected by their partners of infidelity; stereotype thinking about female gender. Myths about family honor; false belief about male sexual entitlement and weak legal sanctions for psychological violence. The unequal position of women relative to men and the normative use of violence to resolve conflict are strongly associated with both intimate partner violence and non-partner sexual violence.

Impact on Women's Physical and Mental health

Domestic violence includes wide range of physical injuries like cuts, bruises, broken bones, chronic injuries like hearing loss, headaches, joint ache and permanent disability.

Its impact on women's mental health is even more severe than on physical health. The psychological damage caused by violence lasts longer and sometimes forever. The experience of violence affects women's self-esteem and makes them even more vulnerable to a variety of mental health problems including depression anxiety, phobia, post-traumatic stress disorder, suicide, suicide attempts and substance abuse.

Impact of Domestic violence on Children

Domestic violence seriously threatens the health and emotional wellbeing of children. In recent years, researchers have focused attention on children who are exposed to domestic violence. It is

reported that Children who grow up in families where there is violence may suffer plethora of behavioral and emotional disturbances. It can also lead to committing violence or experiencing violence later in life. Domestic violence has also been associated with higher rates of infant and child mortality and morbidity.

Winter et al.,(1999) examined how domestic violence on children may differ depending on a number of variables, such as their age, the nature and severity of the violence, the existence of other risk factors in their lives (i.e. Poverty, parental substance abuse).In general, childhood exposure to domestic violence can be associated with increased display of aggressive behavior, increased emotional problems such as depression and/or anxiety, lower levels of social competence, and poorer academic functioning in present as well later in life.

According to United Nations Development Programme (2005), nearly 70percent of married women between the age of 15 and 49 years face domestic violence in India.

Traces of Domestic violence in India

The first in-depth analysis of the status of women in India was undertaken in 1971, when the Government of India appointed a committee on the status of women in India (CSWI) to examine the rights and status of women within the changing socio-economic conditions of the country.

Most of the researches done bySakhare, (1985); Kishwar, (1986); Devi Prasad &Vijayalakshmi, (1988);Kumari, (1989);Sinha,(1989);Saroja and Chandrika,(1991);Paul,(1992) emphasized that reasons for domestic violence was majorly issues related withdowry.

Visaria (2000) did a study ina village of Gujarat and came to conclusion that 66%of women reported some form of psychological physical or sexual abuse or physical violence.

Subramanian et al. (2007) took a sample of 92,000 Indian households where domestic violence was reported by women. Results indicated that women who were victims of domestic violence have a 37% increased risk of suffering from the common respiratory condition .Women who had not experienced domestic violence themselves but had witnessed such acts against other female members in the same household were at an increased risk of developing Asthma by 21% in comparison to women who lived in violence free environment.

Hanes and Flannery (2000) have identified how abused women are ‘active learners in their own lives’. Women try to learn from their own life experiences as best they can.

In one of the research done by Giesbrecht & Sevcik (2000) reported that many survivors of domestic violence identified spirituality and their identity within their faith community as integral components of their identity and experience. Thus, the women viewed both their

experience of abuse and recovery from abuse as occurring within the context of their faith. Many women as a result of it turned to their religious communities for support.

Spirituality

Spirituality has come to represent individual's efforts at reaching an existential goal in life. This could be finding meaning in one's life, wholeness, inner potential or interconnectedness with others.

Spirituality may act as a catalyst to protect domestic violence survivors from adverse outcomes. It has been found to have a positive impact on people experiencing crises and traumas such as divorce, physical or mental illness, substance abuse, sexual assault, and grief.

In one of the study of the influence of spirituality on mental health an inverse relationship between four dimensions of spirituality – meaning of life, intrinsic values, belief in transcendence and spiritual community – and symptoms of depression was reported.

Spirituality is often used interchangeably with religiosity though some researchers differentiate and according to Derezotes, (1995) religiosity, in contrast to spirituality, typically includes institutional affiliations that share a system of beliefs, rituals, and behaviors. Hill et al., (2003) suggest that spirituality and religiosity are related rather than independent constructs and that prayer overlaps in the conceptualization of both spirituality and religiosity.

Many studies investigated the relationship between well-being measure, spirituality and spiritual experience and findings were that people who have had spiritual experiences are in the normal range of well-being and have a tendency to report more extreme positive feelings than others.

In a qualitative study done by Hassouneh-Phillips (2003) reported spirituality as a dynamic coping mechanism but also as vulnerable in case of a sample of American Muslim female survivors of domestic violence.

Krishna Mohan (1999) looked into the effects of spiritual experiences of 200 respondents belong to various spiritual organizations based on Hindu Philosophy. The findings revealed that after the spiritual experiences they were generally happy, cheerful and at peace, and rarely downhearted or depressed. Majority of the respondents reported having excellent health, and were satisfied with the meaning and purpose they found in their lives.

It is also reported that 72% percent women indicate the role of spirituality in their personal lives and 62% percent that spirituality was very important in their professional lives.

Due to the positive impact on coping and mental health, spirituality has become an increasingly popular area. However, the definition of spirituality continues to be a challenge for researchers,

as evidenced by a variety of definitions in the literature. Some common definitions include: the search for meaning or purpose in life; faith in, or relationship with, a Higher Power and a transcendent dimension of the secular world; as well as sacredness of life, material values, altruism, idealism, awareness of the tragic, and the fruits of spirituality.

Various researches indicate that Spirituality appears to be an important factor in many helping practitioners' work although they did not use any uniform process to incorporate spiritual beliefs or principals into practice.

There are some researches which are contrary to the above findings conclude that it is highly inappropriate to direct clients, who seek help, to change their viewpoints about spirituality or religion.

Spirituality and Domestic Violence

Spirituality emerged as a factor in dealing with work stress, providing an additional source of support for some, though not all. Counselors presented a range of beliefs and practices and these were, in turn, influenced by a complex blend of work and personal experiences. Further, counselors' beliefs influenced their work in a variety of ways, by providing a motivation or coping strategies or support, or by giving them a framework in which to place clients' experiences.

Kreidler (1995) has identified the need for and usefulness of spiritual healing groups for those who are survivors of family violence. She argues that the experience of being hurt by someone one believes should love, cherish, and protect one cause a great deal of spiritual distress. This distress can manifest itself in various ways, including feelings of despair, belief that life is meaningless, or perceptions of oneself as powerless.

METHOD

Sample

Sample consisted of 50 women who were survivors of domestic violence. The criteria for being accepted into the study included those who were above 22 years of age and not more than 35 years, who had experienced physical and psychological aggression.

Intervention

The study sample participated in a Standard 10-week Spiritual Healing Program that was facilitated by experienced Psychologists working in this area. The program consisted of daily sessions that lasted for 2 hour each week. It included didactic instruction on Spirituality and its relationship to stress and health and group discussion on the same.

Procedure

Women were selected from Noida region who wanted to voluntarily share their experience. They were receiving counseling and guidance in terms of their future endeavors. They were explained the purpose of the study, and asked if they would be willing to participate in a study investigating women's responses to domestic violence. It was further explained that participating or refusing to participate was unrelated to, and would have no bearing on the counseling they were receiving.

Tools used

Following tools were used for the current study:

Physical and Psychological Aggression. The Revised Conflict Tactics Scale (CTS-2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996), the most widely used measure for assessing marital violence, was used to assess levels of physical assault, physical injury, sexual assault, and psychological aggression experienced by the female. The CTS-2 is a 78-item scale that asks about the relationship conflict behaviors of the respondent and the respondent's partner. Five subscales make up the CTS-2: Negotiation, Psychological Aggression, Physical Assault, Sexual and Injury. The subscales used for this study have been found to have good internal consistency (According to Straus et al., 1996, internal consistency of CTS-2 subscales are Psychological Aggression _ .79; Physical Assault _ .86; Sexual _ .87; Injury _ .95)

Spirituality. Spirituality was assessed using the Daily Spiritual Experiences Scale (DSE; Underwood & Teresi, 2002). The DSE is a 16-item scale that measures aspects of day-to-day spiritual experiences. The first 15 items are scored using a 6-point scale (i.e., 1_*many times a day*, 2_*every day*, 3_*most days*, 4_*sometimes*, 5_*once in a while*, and 6_*never or almost never*). The 16th item (i.e., have four response categories: *not close at all*, *somewhat close*, *very close*, *as close as possible*). It was scored in such a manner that higher scores reflect higher daily Spiritual experiences). Scores could range from 16 to 94. High internal consistency is reported for the scale, with alphas ranging from .94 to .95.

Depression. The Beck Depression Inventory (BDI; Beck, Steer, & Garbin, 1988; Beck et al., 1961) was used to assess depressive symptoms. The BDI contains 21 items with scores ranging from 0 (*low depression*) to 3 (*maximum depression*) for each item. Total BDI scores between 14 and 20 are indicative of moderate depression and scores above 21 indicate severe depression. The BDI has been found to have good reliability, with a split-half reliability coefficient of .86, and a test-retest reliability coefficient of .75 (Beck et al., 1988).

Analysis

Pre and Post Study were done to examine the effect of Spirituality on Physical and Psychological Aggression and Depression.

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Pre-Study data was analyzed to see the relationship between different dimensions of CTS-2 scale (i.e., Physical Assault Victimization; Psychological Aggression; Sexual Coercion; Physical Assault Perpetration; Injury) and Depression by using Beck's Depression inventory.

RESULT

Table –1, Pre- Intervention Mean and Standard Deviation on the Revised Conflict Tactics Scale (CTS-2)& Depression

MEASURES	MEAN	SD
Physical Assault Victimization	25.44	13.23
Psychological Aggression	23.92	13.88
Sexual Coercion	12.59	11.54
Physical Assault Perpetration	8.92	9.01
Injury	8.74	9.26
Depression (BDI)	19.92	13.35

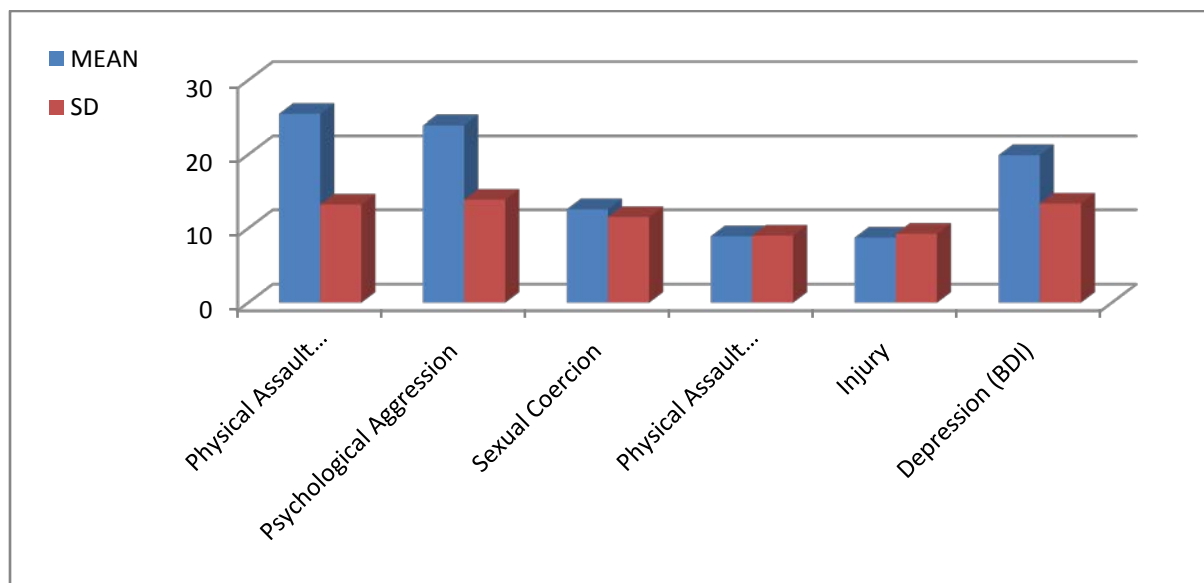


Figure 1. The mean and standard deviation of subscales of the Revised Conflict Tactics Scale (CTS-2)& Depression

Post study was done using Spirituality as an intervention and its impact on Depression among domestic violence survivors.

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Table – 2 *Post- Intervention Mean and Standard deviation on Daily Spiritual Experiences & Depression*

MEASURES	MEAN	SD
Daily Spiritual Experiences (DSE)	74.45	11.37
Depression (BDI)	13.25	10.30

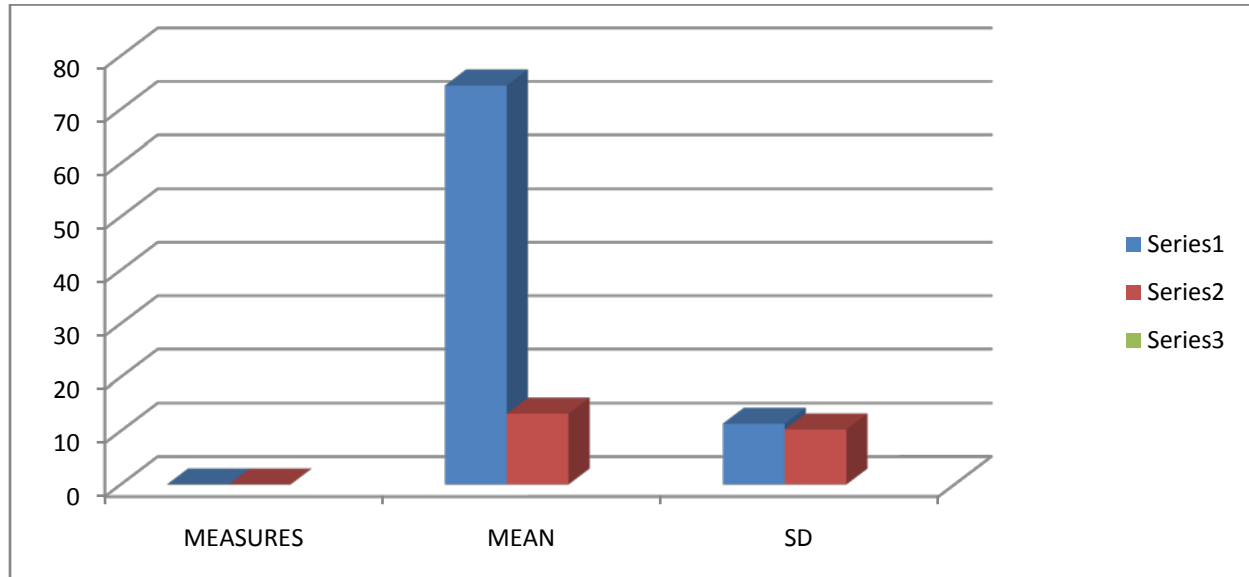


Figure 2. *The Mean and Standard deviation on Daily Spiritual Experiences & Depression Post intervention.*

Table 3. *The difference in Depression Pre and Post Intervention*

Depression	t- value
	2.13*

t-value is significant at 0.05 levels thus establishing the role of Spirituality among Domestic violence survivors.

DISCUSSION

The present study sought to examine ways in which Domestic violence impacts depression and the role of spirituality as an intervention. Results indicate that women who reported higher levels of spirituality had fewer depressive symptoms.

Pre and post study was done to see the impact of Spirituality as an intervention among domestic violence survivors. As Table 1 indicates mean and standard deviation on various sub scales of the revised Conflict Tactics Scale (CTS-2) and Depression. Depression is found to be at higher level Pre-intervention. Table 2 reflects data post intervention and depression is lower due to spirituality as an intervention (figure 2.)

Table 3 indicates t- value to be significant at 0.05 levels thus validating the association between spirituality and depression. The overwhelming majority of women in the sample noted that spirituality or God was a source of strength or comfort for them. Spirituality acted as a source of coping mechanism for them to overcome the physical and mental trauma they had to go through as it assists them to come to terms with the problem. Having a strong spiritual outlook may help to find meaning in life's difficult circumstances. The spiritual practice of recognizing the interconnectedness of all life can also help buffer the pain that comes with difficult experiences. Thus the role of Spiritual Healing Program impacted in a positive manner in the life of domestic violence survivors. They responded positively and this was evident in their depression level which went down remarkably due to the intervention program.

Tameka L. Gillum et al., (2006) did a study and reported that inclusion of a voluntary spirituality component in victim service programs benefitted battered women. It resulted in lowering the level of depression that women in shelter tend to experience as they have to stay in a shelter environment.

Some researches have also emphasized that there are other factors apart from spiritual that leads to lowering the level of depression and boosts self-concept of women. It has been found in studies that the women's number of children was significantly correlated with both self-esteem and depression. The greater the number of children they had, the greater their self-esteem and the lower their level of depression. Thus, survivors of domestic violence, who are in abusive relationships are not receiving positive reinforcement from their intimate relationships but psychological satisfaction from their responsibilities as mothers and the closeness of their relationships with their children.

LIMITATIONS OF THE STUDY

Few limitations in the present study are worth addressing. Firstly, the sample size in the study is relatively small. It is possible that significant associations between the Spirituality and Depression outcomes were due to the small sample size.

Secondly, Sample for this study. Nearly all the sample was drawn from population seeking help. This may not reflect the population of domestic violence survivors as a whole. It is likely; they differ from community samples in the frequency and severity of abuse and social support.

Thirdly, the quantitative nature of the study sets limitation for women from speaking and defining the variables for themselves.

IMPLICATIONS

There are some potential implications that make this study an important contribution. Spiritual healing as a therapeutic intervention for domestic violence survivors has emerged as an

important coping mechanism. This can be further researched and refined to minimize the physical and psychological effects of violence.

It can also provide guidelines for clinical training, practice and well-being.

A 2015 journal article on domestic violence in India, by Claire Snell-Rood, a medical anthropologist at the Department of Behavioural Science with the University of Kentucky, reported that 75-86 percent of women do not disclose that they are victims of abuse by their families. Thus to help them come out from this kind of mindset, awareness about spirituality and its impact on the self-concept, self-esteem and eventually on the wellbeing need to be emphasized and which is possible through initiatives and studies in this area of research.

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Effectiveness of Cognitive Retraining In Chronic Mental Illness

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ABSTRACT

Introduction: Cognitive impairment is the core feature in several chronic mental illnesses like schizophrenia and bipolar mood disorder. Its effect permeates to areas like work, social relationships and capacity for independent living. It determines the rate of rehabilitation and there lies the need to study cognitive retraining as a measure of effectiveness for psychiatric rehabilitation. **Method:** A sample of 10 patients was chosen for the study educated upto a minimum of Vth Grade and aged between 30-45 years. All ten patients were assessed prior to intervention and post intervention on Brief Psychiatric Rating Scale, Global Assessment of Functioning and selected tests from NIMHANS neuropsychological battery for adults (Color trails test, Stroop test, NBack test and WCST). Five patients were randomly selected for cognitive retraining (12 sessions for 4 weeks, 3 sessions each week for one hour). **Results & Conclusion:** The analysis of scores at post intervention suggested no statistically significant differences in performance of intervention group and control group in the areas of attention, working memory, response inhibition and set shifting. However differences in mean for time taken on color trails and total correct scores, total errors and overall stroop effect, indicates a positive trend for improvement in these functions in the intervention group post cognitive retraining. The one month intervention duration is a likely limiting factor.

Keywords: Cognitive Retraining, Rehabilitation, Chronic Mental Illness.

Psychiatric rehabilitation denotes a wide range of interventions designed to help people with disabilities caused by mental illness to improve their functioning and quality of life by enabling them to acquire the skills and support required to be successful. It also enables them to deliver the expected adult roles in the environment of their choice (Drake et al, 2005)

Integrated pharmacological and psychosocial treatments, flexibly adapted to patients, changing needs and interests have been shown to yield better symptom control and higher level of community functioning. The treatment needs to be comprehensive, consistent, coordinated and competency based to achieve optimal outcomes (Adair et al.2005)

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Executive functions are set of mental skills that are co-ordinated in brain's frontal lobe which includes organization, regulation, planning, problem solving, etc. Executive functioning is impaired in schizophrenia which means difficulty in one or more of the above cognitive areas (Morice and Delahunly, 1996. Mahurim et al., 1998. and Bryson et al., 2001). Executive deficits have a substantial impact on functional outcomes (Semkovska et al., 2004, Altshuler et al., 2007 and Bowie et al., 2008) and are closely related to chronicity (Greenwood et al., 2008).

Deficits in attention and information processing are central to schizophrenia and these contribute to deficits in working memory and executive functions (Braff, 1993). Such deficits are present in more complex measures of social cue recognition and 'theory of mind' (Greig, Bryson, & Bell, 2004). Theory of mind (ToM) refers to the ability of an individual to make inferences about what others may be thinking or feeling and to predict what they may do in a given situation based on those inferences. (Schingler, 2009) These cognitive deficits can be categorized into three major categories: a) the primary processes which includes attention, information processing and perception. b) the secondary processes which include executive functions & memory. c) meta processes which includes insight (Rao, 2004).

The increasing awareness of the central role of cognitive deficits in schizophrenia has fostered considerable interest in the prospects of cognitive rehabilitation. The initial studies to investigate the generalization of cognitive retraining to tasks other than specifically trained function in schizophrenia patients were carried out by Wagner (1968) and Meichenbaum (1973). Almost a decade later, two studies rekindled interest in the application of cognitive retraining in schizophrenia. The authors concluded that a basic neurocognitive deficit owing to brain dysfunction made such rehabilitation impossible. Integrated Psychological Therapy (IPT), a comprehensive program to improve social competence by first enhancing basic cognitive skills was demonstrated by Brenner, Hodel, Roder, & Corrigan (1992) and results indicated role of cognitive rehabilitation in the treatment of schizophrenia.

Bell et al. (2008) conducted a study to understand whether people with schizophrenia improve after cognitive retraining on attention tasks, whether individual performance varies by task, and what task improvement measures relate to pre-post-change in neuropsychological tests of attention. Thirty-two outpatients with schizophrenia or schizoaffective disorder completed at least 40 cognitive training hours on two computerized visual attention training tasks (VT1 and VT2) and pre-post-testing with Digit Span, Digit Symbol Substitution Task, and Continuous Performance Task and found that cognitive training was effective in improving task performance but that similar tasks can be different in who performs well and what components of attention may be affected.

Most of the cognitive retraining programs aim to improve the cognitive domains usually associated with deficits in schizophrenia—for instance verbal and visual working memory,

executive function, attention, and processing speed. This is a top-down approach in which the target of training is a higher-order cognitive process (Hurford et al,2011).

Fisher and colleagues adopted a computerized remediation program called Posit Science which focused on early auditory and visual sensory processes, such as tone and phoneme discrimination, as well as higher-order cognitive processes, such as verbal memory. Vinogradov believes that focusing on early sensory processing in schizophrenia is important because previous research findings indicate that there are early sensory processing deficits in schizophrenia (Hurford et al, 2011)

Schiavon, et al (2013) did systematic review on retraining for executive functioning deficit on schizophrenia. For that they reviewed 184 articles on the basis of which they found cognitive retraining could improve cognitive domains and social adjustment either using computerized or paper-and-pencil programs.

To date, there has been no head-to-head comparison of bottom-up and top-down approaches and almost all cognitive retraining programs use at least some repetitive practice of cognitive exercises to target domains of deficit, many also include other unique components beyond drill and practice (Hurford, et al, 2011) The duration of cognitive retraining programs being highly demanding, there is a need to establish the effectiveness of a cognitive retraining program in patients with chronic and severe mental illness; similar to neurological conditions Hence the present study was planned on understanding the effectiveness of a cognitive retraining program.

METHODOLOGY

The aim of the study was to understand the effectiveness of cognitive retaining in chronic mental illness.

The objectives of the study were:

- 1) To study the impact of cognitive retraining on global functioning and severity of psychopathology.
- 2) To study the effectiveness of cognitive retraining on attention.
- 3) To study the effectiveness of cognitive retraining on working memory in patients.
- 4) To study the effectiveness of cognitive retraining on executive functions like set- shifting and response inhibition.

Sample:

A sample of 10 patients (males and females), aged between 30 years to 45 years educated up to minimum 5th Grade level, admitted in Hospital For Mental Health, Ahmadabad since 5-10 years were chosen for the study. Out of which five of them underwent the cognitive remediation programme whereas the other five patients were waitlisted for intervention as waitlist controls. The inclusion criteria being:

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- Patients with diagnosis of F20-F29: Schizophrenia, schizotypal and delusional disorders or F30-F39: Mood [affective] disorders according to ICD-10 guidelines.
- Duration of Illness 7 years or more.
- Minimum education level Vth Grade were included as sample.

Tools:

The tools used for data collection were Brief Psychiatric rating scale, Global assessment of Functioning and NIMHANS neuropsychological battery for adults (Color trails test, Stroop test, N Back test and Wisconsin Card Sorting Test).

Procedure:

All ten patients were assessed prior to intervention on Brief Psychiatric rating scale, global assessment of functioning and selected tests from NIMHANS neuropsychological battery for adults (Color trails test, Stroop test, NBack test and WCST). 5 patients were randomly selected for cognitive retraining (12 sessions for 4 weeks, 3 sessions each week for one hour).

Intervention Package:

The cognitive retraining package comprised of a number of tasks, out of which some were of graded difficulty from first to fourth week. For attention retraining, number and symbol cancellation tasks: single as well as double was used with graded difficulty. For visual working memory, 10 flash cards were used with geometric design and pictures which were arranged in order of increasing difficulty were presented to the participants. Whereas for verbal working memory retraining, grammatically incorrect jumbled sentences were used in order of increasing difficulty. For retraining of response inhibition, a sheet with different geometric shapes was used on which, the subject was asked to follow ‘start’ and ‘stop’ instructions and spontaneously change colouring of pattern as per the instructions. For set shifting three types of activities were planned as part of retraining: hand and foot tapping sequencing, card sorting and bead sorting in order of increasing difficulty.

Statistical Analysis was carried out using SPSS 20.0 version, independent samples t test to compare scores pre and post intervention within group and between groups was applied using non parametric test and also Wilcoxon’s Signed Rank Test was applied to compare the errors, omission and commission scores pre and post assessment of neuropsychological functioning and to compare the scores of neuropsychological assessment of patients of waitlist controls.

RESULTS**Table 1: Shows results of independent sample t test to compare groups on Education and Duration of illness**

Variables	Group	Mean (in years)	Standard Deviation	t	Significance level
Education	Intervention Group	8.40	2.7	2.14	0.06
	Control Group	11.20	1.09		
Duration of illness	Intervention Group	10.8	5.5	0	1.0
	Control Group	10.8	3.5		

df=8 , $p \geq 0.05$

The results in the table show that the groups were comparable on the level of education (years) and duration of illness. The mean education level of intervention group was 8.40, standard deviation was 2.7 and for the control group the mean was 11.20 with a standard deviation of 1.09. This indicates that there is no statistically significant differences between the two groups on education level and the two groups are comparable.

On duration of illness, the mean duration of illness for the intervention group was 10.8 years, mean standard deviation was 5.5, whereas the mean duration of illness was also 10.8 years for control group with a standard deviation of 3.5 which suggests no statistically significant differences between two groups at pre- intervention level ($t=0$, $p=1.0$, $p \geq 0.05$). Hence it can be said that the two groups were comparable prior to the intervention.

Table No 2: Showing results on Brief Psychiatric Rating Scale and Global assessment of functioning between the intervention group and waitlist controls pre and post intervention

Scores/Areas	Pre Intervention	Post Intervention
BPRS	0.79	1.3
GAF	0.7	0.7

Table 2 shows the results of BPRS total score when compared pre intervention assessment to post intervention assessment, no statistically significant differences were found ($t=0.79$, $p=0.46$, $p>0.05$). The assessment results prior to intervention showed no statistically significant difference, which suggests that the groups were comparable prior to intervention ($t=0.79$, $p=0.76$). It was noticed that there was no change in total BPRS score as a result of intervention.

There were no significant differences in GAF total scores in assessment done pre and post intervention. On assessment done prior to intervention $t=0.7$, $p=0.4$, $p>0.05$. Similarly on post intervention assessment no statistically significant differences were found ($t=0.7$, $p=0.46$, $p>0.05$). This suggests no significant improvement in global functioning could be noticed as a result of intervention.

Table 3: Shows results on independent samples t test to compare scores on color trails test pre and post intervention.

Variables	Groups	Mean	SD	t	p
Color Trails 1(pre)	Intervention Group	134	34.3	0.9	0.3
	Control Group	107	53		
Color Trails 1 (post)	Intervention Group	99	38.6	0.1	0.3
	Control Group	78	17.01		
Color Trails 2 (pre)	Intervention Group	288	129	1.3	0.20
	Control Group	187	98		
Color Trails 2 (Post)	Intervention Group	205	113	0.7	0.49
	Control Group	162	76		

df=8

The results indicate that on color trails 1 there is no statistically significant difference between the groups at pre intervention assessment ($t=0.9$, $p=0.3$) and post intervention no statistically significant differences were noted ($t=0.9$, $p=0.3$) but differences in mean as the time taken to complete trail 1 in intervention group has reduced from 134 to 99 during post intervention assessment, suggesting slight improvement in performance as a result of intervention (difference in mean= 35). Whereas the changes in the control group in time taken has reduced less compared to intervention group (difference in mean=25).

On color trails 2 also, no statistically significant differences were found between the groups at pre and post intervention on time taken to complete the color trail, $t=0.7$, $p=0.49$ at $df=8$ $p>0.05$. However, there were difference in mean in the intervention group (difference in mean=83) where as in the control group it was just 25. Hence it can be said that there was slight improvement in focussed attention as a result of intervention, though it is not statistically significant.

Table no 4: Shows results on independent samples t test to compare scores on stroop test pre and post intervention.

	Groups	Mean	SD	t	df	p
Stroop effect (pre)	Intervention Group	92	31.7	1.98	8	0.08
	Control Group	61	14.5			
Stroop effect (post)	Intervention Group	73	32.5	1.72	8	0.1
	Control Group	45	16.3			
Condition 1 (pre)	Intervention Group	128	37.1	0.26	8	0.79
	Control Group	134	35.9			
Condition 1 (post)	Intervention Group	127	34.5	0.36	8	0.72
	Control Group	135	38.9			
Condition 2 (pre)	Intervention Group	220	56.5	0.26	8	0.79
	Control Group	191	43.8			
Condition 2 (post)	Intervention Group	194	46	0.8	8	0.7
	Control Group	182	51			

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The results indicate that there are no statistically significant differences in time taken on condition 1 and condition 2 of stroop test at pre and post the intervention levels. On condition 1 pre intervention assessment statistically no significant differences were found between the groups ($t=0.36$, $p=0.7$ ($p>0.05$)).

On condition 2, post intervention ($t=0.8$ $p=0.7$, $p>0.05$) suggesting no significant difference as a result of intervention. Overall stroop effect there was no significant difference post intervention ($t=1.72$, $p=0.08$ $p>0.05$). However, mean difference in intervention group was more than control group.

Table 5: Shows Wilcoxon's Signed Rank test to compare total correct, errors, perseverative error, responses and non perseverative errors on WCST post intervention of intervention and control group.

	Groups	Sum ranks	Mean of Ranks	Z	P
Total correct	Negative ranks	2.75	5.50	0.54	0.58
	Positive ranks	3.17	9.5		
Total Errors	Negative ranks	3.5	10.50	0.81	0.41
	Positive ranks	2.25	4.5		
Perseverative responses	Negative ranks	2.5	10.5	0.67	0.50
	Positive ranks	5.0	5.0		
Perseverative errors	Negative ranks	2.5	7.5	0.00	1.0
	Positive ranks	3.75	7.5		
Non-Perseverative errors	Negative ranks	3.13	12.50	1.3	0.17
	Positive ranks	2.50	2.50		
Concept level responses	Negative ranks	5.0	5.0	0.67	0.50
	Positive ranks	2.5	10.0		
Number of categories completed	Negative ranks	1.00	1.00	0.44	0.65
	Positive ranks	2.00	2.00		

The results from table 5 suggests when post intervention scores of both control group and intervention group were analyzed at post intervention assessment, statistically no significant differences were found on total correct responses ($Z=0.54$, $p=0.58$), total errors ($Z=0.81$, $p=0.51$), perseverative responses ($Z=0.67$, $p=0.50$), perseverative errors ($Z=0.00$, $p=1$) and non-perseverative errors ($Z=1.3$, $p=0.17$) concept level responses ($Z=0.67$, $p=0.50$) and number of categories completed ($Z=0.44$, $p=0.65$). This suggests that on set shifting ability there were no statistically significant improvement noted between the groups as a result of intervention.

Table 6: Shows Wilcoxon's Signed Rank test to compare correct/hits, omissions, commissions and total errors on Verbal working memory on N Back test post intervention in the intervention group and control group:

	Groups	Sum ranks	Mean of Ranks	Z	p
Verbal working memory hits (pre-post)	Negative ranks	2.5	5	0.00	1.0
	Positive ranks	2.5	5		
Verbal Working memory omissions (pre-post)	Negative ranks	2.33	7	0.1	0.89
	Positive ranks	4.00	8		
Verbal working memory commissions (pre-post)	Negative ranks	1	1	0.44	0.65
	Positive ranks	2	2		
Verbal Working memory errors	Negative ranks	3.25	6.50	0.27	0.78
	Positive ranks	2.83	8.50		

The results on verbal working memory when compared between control group and intervention group shows no statistically significant difference on hits/ correct responses ($Z=0.00$, $p=1.00$), omissions ($Z=0.1$, $p=0.89$), commissions ($Z=0.44$, $p=0.65$), errors ($Z=0.27$, $p=0.78$). This suggests that statistically no significant improvement could be noted in the verbal working memory function in the intervention group and control group at post assessment.

Table 7: Shows Wilcoxon's Signed Rank test to compare correct/hits, omissions, commissions and total errors on Visual working memory on N Back test post intervention of intervention and control group.

	Groups	Sum ranks	Mean of Ranks	Z	p
Visual working memory hits	Negative ranks	2.83	8.5	0.27	0.78
	Positive ranks	3.25	6.5		
Visual Working memory omissions	Negative ranks	3.25	6.5	0.27	0.78
	Positive ranks	2.83	8.5		
Visual working memory commission	Negative ranks	3.5	7	0.7	0.4
	Positive ranks	1.5	3		
Visual Working memory errors	Negative ranks	4.5	9	0.40	0.68
	Positive ranks	2.0	6		

The results on visual working memory when compared between control group and intervention group shows no statistically significant difference on hits/ correct responses ($Z=0.27$, $p=0.78$), omissions ($Z=0.27$, $p=0.78$), commissions ($Z=0.7$, $p=0.4$), errors ($Z=0.4$, $p=0.68$). This suggests that statistically no significant improvement could be noted in the visual working memory function in the intervention group and control group at post assessment.

DISCUSSION

In a study conducted by Bell et al (2008) suggests that cognitive training focussed at attention tasks brings about improvement in cognitive symptoms. Metanalytical studies have also suggested that deficits of attention are central to most chronic illness and need to be addressed in cognitive retraining which have shown improvement (Trivedi, 2006). However, in the present study even though there were no statistically significant changes noted in performance, the consideration of differences in mean from pre intervention assessment to post intervention assessment in the intervention group definitely suggest that the focused attention, perceptual tracking and mental flexibility are on the path of improvement as a result of retraining. Increasing the number of sessions of cognitive retraining might give results similar to those found in earlier studies.

Impairment of working memory, sustained attention, focusing-execution, abstract reasoning and visuomotor skills, verbal memory, verbal fluency, visuospatial ability, have all been reported, even in the euthymic phase of the illness.(Trivedi, 2006). There have also been studies where researchers observed that manipulations of experimental stimuli (e.g., reduction in attentional demands, changes in stimulus characteristics) could produce improvements on laboratory tasks (Twamley, Jeste, & Bellack, 2003) and ultimately on cognitive deficits like attention and working memory. However, in this study, no statistically significant improvement has been noted as a result of cognitive retraining in either working memory modalities, particularly in the intervention group. This may be suggestive of the limitation of the cognitive retraining task targeting verbal and visual working memory being not adequate or by increasing the duration of retraining task results similar to previous findings can be noted.

Set shifting ability regulates attention, speech, thought, emotion and social behaviour. It requires cognitive flexibility both in formation of mental set and in the subsequent shifting of the set (Delahunty,1993). Hence it is a relatively complex function which might take longer duration and intensive retraining to improve.

In the present study the increase in total correct responses and reduction in total errors in the intervention group suggests a positive trend towards gradual improvement provided the adequate retraining tasks is given for a longer duration. Also in chronic mental illness, this ability seems to be severely impaired; hence the findings are somewhat similar to previous studies, though no marked improvement can be noted in reduction of perseverative errors and responses

Yet, some positive findings of improvement in some basic functions definitely explores the possibility of use of such a cognitive retraining package for a longer duration with most chronic mental illness, which will further not only help improve the global assessment of functioning of these individuals but also help to some extent in preventing relapse.

CONCLUSION

The aim of the study was to understand the effectiveness of cognitive retaining in chronic mental illness. Even though no significant statistical differences were found between the individuals who underwent intervention and who were waitlist controls in the areas of attention, set shifting, working memory, but mean differences were noticed in the area of focused attention and visual scanning suggesting a positive trend to cognitive enhancement. With some improvisations in the tasks targeting each functions and increasing the duration of administration of this package on a mixed group of patient suffering from chronic mental illness might definitely bring improvement in their cognitive deficits as well as psychosocial functioning.

LIMITATIONS OF THE STUDY

1. The study was planned for only one month i.e. 12 sessions. Hence no significant improvement or conclusive effectiveness could be established.
2. Other than vocational training, only cognitive retraining sessions were planned.
3. Some tasks seemed quite simple to the participants during retraining sessions. Hence they could be replaced or improvised keeping in mind the difficulty level and interests of the participants to bring out effectiveness.

FUTURE DIRECTIONS

After improvisation of some tasks of specific functions like set shifting, verbal and visual working memory the package could be applied to a larger sample size with varied diagnosis of chronic mental illness for minimum two months to see its effectiveness.

A cognitive retraining package which compares the effectiveness of top-down and bottom-up information processing approach along with the compensatory strategies of rehabilitation can be developed with a clear emphasis on more concrete goals.

A multimodality treatment along with this package will benefit the patient in improving his global or psychosocial functioning and will also ensure improvement.

IMPLICATION OF THE STUDY

A cognitive retraining package of this type may prevent the progression of cognitive deterioration and will also not hinder social information processing and occupational difficulties.

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Effectiveness of Guided Imagery in Reducing Examination Anxiety among Secondary School Students in South India

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ABSTRACT

Objective: To assess the effectiveness of guided imaginary techniques on examination anxiety among the school adolescent's. **Methods:** The sample consisted of 60 students (30 were in control group and 30 were in experimental group) aged 14 to 16 years studying in class IX and X at matriculation schools in Madurai. The examination anxiety was measured using Test Anxiety Questionnaire. **Results:** Of the 30 control group students, 63% had unhealthy anxiety in pretest and in post test it was 70%, whereas in experimental group, among the 30 students, 57% had unhealthy anxiety in pretest but in post test it was 0%, there is no unhealthy anxiety. There was a significant difference seen between control group and experimental group after teaching the imagery techniques. (Mean score in control group - 34.93, in experimental group - 17.83, $P < 0.000$). **Conclusion:** The results indicate that guided imagery technique is effective in reducing the examination anxiety among school students. And it will help to reduce anxiety of students at all levels of examination to perform good in their academic especially in board examination. Further research may help in guide policy on education to improve the teaching methodology allowing the students to control the anxiety on exam.

Keywords: Test Anxiety, Guided imagery, Secondary School, Adolescents.

Anxiety is an emotion characterized by feelings of tension, worried thoughts and physical changes.¹ Anxiety can cause difficulty in concentration and prevent us from recalling material that we have learned.² A student who is experiencing test anxiety may do poorly on an exam even if he or she knows the material better than a classmate who is able to control anxiety.³ American test anxiety association identified, test anxiety in school-aged children as a serious educational problem in today's society. School-related stress is the most prevalent, untreated cause of academic failure in our schools. In a class room of 25 students, between one to three

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students are of high risk for developing stress-related problems which would probably interfere with learning.⁴

Anxiety is one of the most common psychological disorders in school-aged children and adolescent's worldwide.⁵ The prevalence rates range from 4.0% to 25.0%, with an average rate of 8.0%.⁶ Early Indian studies reported prevalence rates of psychiatric disorders among children ranging from 2.6 to 35.6 per cent.⁴ Anxiety among students and their parents has been reported to be on the rise in India, especially among those facing board certification examinations.⁷

Exam Anxiety is a common phenomenon negatively affecting the academic, emotional, personal and social lives of almost 20% students across nationalities including India.⁵ Test anxious students score poor grades/marks and have poor mental health in comparison to others. It may be fatal at times. There are reports of deliberate self-harm and suicide by students highlighting the need for timely intervention.⁸ Exam anxiety can also be labeled as anticipatory anxiety, situational anxiety or evaluation anxiety. Some anxiety is normal and often helpful to stay mentally and physically alert.⁹

Guided imagery therapy is a cognitive behavioral technique in which under the guided instructions a client is guided in imagining a relaxing scene or series of experiences.¹⁰ It is a gentle powerful technique more often used to promote relaxation and to provide therapeutic benefits. It involves the conscious use of imagination to create positive images in order to bring about healthful changes.¹¹ Numerous clinical observations suggest, it will be effective in helping individuals learn or modify behaviour such as learning to relax, changing and controlling their negative emotions in response to a particular situations, event or belief, preparing themselves for positive changes.¹⁰

Therefore, the aim of the present study was to assess the effectiveness of guided imagery relaxation technique in reducing examination anxiety among Secondary School Students.

METHODS

The quasi experimental study was conducted with the convenience sample of 60 students studying in class IX and X standard aged of 14-16 from Ruby Matriculation Higher Secondary School and HDI Jain Matriculation Higher Secondary School, Madurai, Tamil Nadu, India, over the period of 2 months in 2012. The students who willing to participate and understand Tamil and English language were included, among the 60 students, 30 were in experimental group and 30 were in control group.

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Semi-structure interview:

A semi structure questionnaire was used to collect the demographic profile, which includes age, gender, standard of studying, family monthly income, job of parents, parental expectations, Religion, relaxation technique, sleeping hours, psychological support and previous failure.

Test anxiety questionnaire:

It was developed by Nist and Diehl (1990) to determine level of student' test anxiety, it was consisted of ten items. The questionnaire items have 5 points Likert- like format with the following coding: Never (1), Rarely (2), Sometimes (3), Often (4), and Always (5). Total Scores was range from 10 – 50. Score ranged from 10 to 19 low students' test anxiety. Score ranged from 20 to 35 moderate students' test anxiety. Score ranged from 36 to 50 high students' test anxiety.¹²

Procedure:

The researcher underwent the training of guided imagery technique in Valliammal Institution, Madurai, Tamilnadu, for formal certificate programme. Followed by official permission was obtained from the authorities of concerned School to conduct this study. The investigator initially established rapport with the exam going students, followed by each individual student was informed about the purpose of the study and confidentiality was promised and ensured. Informed consent was obtained from each individual. The students had the freedom to leave the study by his/ her wish without assigning any reason. The Ruby school students were selected as experimental whereas the HDI Jain Matriculation Higher Secondary School as control group. Demographic profile and Test Anxiety Questionnaire were administered to assess the Examination Anxiety for both groups and the Guided Imagery Technique was taught only to the experimental group students about twenty minutes daily for fourteen days. The post test was conducted after one week of the technique on the second day of examination for the both groups and the collected data were entered into the excel sheet. The data was analysed by using descriptive and inferential statistics.

Ethical clearance was obtained from dissertation committee of the C.S.I Jeyaraj Annapackiam College of Nursing in madurai.

RESULTS

The **table 1** shows the students demographical profile of both control and experimental group. Mostly near to equal distribution of age, sex, and standard in both the control and experimental group. In both the groups, most of the fathers are working as a private employee and also most of the mothers were house wife. Most of the students are coming from the urban area and their family type was nuclear family in maximum number of students. Twenty-two (37%) students family income was less than 8000 INR, 21 (35%) were in between 8000 – 15000 INR and the rest of their family income was above 15000 INR.

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Table 1: Demographic profile of 60 students

Demographic variables		Control (n=30)	Experimental (n=30)
Age	14-15 years	18 (60%)	21 (70%)
	15-16 years	12 (40%)	9 (30%)
Sex	Male	14 (47%)	15 (50%)
	Female	16 (53%)	15 (50%)
Standard of studying	9 th Standard	15 (50%)	13 (43%)
	10 th Standard	15 (50%)	17 (57%)
Father's occupation	Government employee	6 (20%)	3 (10%)
	Private employee	18 (60%)	15 (50%)
	Business	6 (20%)	12 (40%)
Mothers occupation	Government employee	1 (3%)	2 (7%)
	Private employee	6 (20%)	5 (17%)
	House wife	22 (77%)	23 (76%)
Place of residence	Urban	20 (67%)	27 (90%)
	Semi-urban	4 (13%)	1 (3%)
	Rural	6 (20%)	2 (7%)
Family type	Nuclear family	18 (60%)	22 (73%)
	Joint family	10 (33%)	6 (20%)
	Extended family	2 (7%)	2 (7%)
Family income per month	<Rs.8000	13 (43%)	9 (30%)
	Rs.8000-15000	8 (27%)	13 (43%)
	>Rs.15000	9 (30%)	8 (27%)

Table 2: Detail of student attitude and parental expectation

Demographic variables		Control (n=30)	Experimental (n=30)
Attending relaxation technique	Yes	10 (33%)	6 (20%)
	No	20 (67%)	24 (80%)
Parental expectation for high scores	Yes	23 (77%)	21 (70%)
	No	7 (23%)	9 (30%)
Peer group competition	Present	22 (73%)	24 (80%)
	Absent	8 (27%)	6 (20%)
Previous failure	Yes	8 (27%)	11 (37%)
	No	22 (73%)	19 (63%)
Any Psychological support	Yes	28 (93%)	28 (93%)
	No	2 (7%)	2 (7%)
Sleeping time at night before exam	≤6 hours	18 (60%)	14 (47%)
	> 6 hours	12 (40%)	16 (53%)
Read only at the time of examination	Yes	14 (47%)	13 (43%)
	No	16 (53%)	17 (57%)

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Among the control group students, only 10(33%) students are attended the relaxation techniques, 23(77%) of their parents expectation is high in scoring marks and 22(73%) students were had peer group competition. There is no previous failure in 22 (73%) students, 28 (93%) students are getting psychological support, 18 (60%) were sleeping less than or equal to 6 hours at night before exam, and 16 (53%) students are regularly reading. Whereas in experimental group, only 6 (20%) students are attend the relaxation techniques, 21(70%) of their parents expectation is high in scoring marks and 24 (80%) students were had peer group competition. There is no previous failure in 19 (63%) students, 28(93%) students are getting psychological support, 16 (53%) were sleeping greater than 6 hours at night before exam, and 17(57%) students are regularly reading (**Table 2**).

Table 3: Level of anxiety of the 60 students

Level of anxiety	Control group				Experimental group			
	Pre		Post		Pre		Post	
	f	%	F	%	f	%	F	%
No Anxiety (10 -19)	2	7%	0	0%	0	0%	22	73%
Healthy Anxiety(20 – 35)	9	30%	9	30%	13	43%	8	27%
Unhealthy Anxiety (>35)	19	63%	21	70%	17	57%	0	0%

Of the 30 control group students, 19(63%) had unhealthy anxiety, 9(30%) had healthy anxiety and 2(7%) had no anxiety in pretest. In posttest 21(70%) had unhealthy anxiety, 9(30%) had healthy anxiety and no one had no anxiety. Whereas in experimental group, among the 30 students, 17(57%) had unhealthy anxiety, 13(43%) had healthy anxiety and no one had no anxiety in pre test, but in posttest after the intervention 22(73%) had no anxiety, 8(27%) had healthy anxiety and no one had unhealthy anxiety.

Table 4: Significant of control group and experimental group

Paired 't' test				
Control Group	Mean	SD	't' value	p-value
Pre Test	34	7.27	1.721	0.096
Post Test	34.93	5.71		
Experimental Group	Mean	SD	't' value	p-value
Pre Test	33	6.06	10.383	0.000**
Post Test	17.83	3.86		
Unpaired 't' test				
	Mean	SD	't' value	p-value
Control Group	34.93	5.71	11.594	0.000**
Experimental Group	17.83	3.86		

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Paired 't' test in control group: The examination anxiety pretest mean score is 34.00 (SD=7.27) and posttest mean score is 34.93(SD=5.71), and the 't' test value is 1.721($P > 0.096$) is not significant.

Paired 't' test in experimental group: The examination anxiety pretest mean score is 33.00 (SD=6.06) and posttest mean score is 17.83 (SD=3.86) and the 't' test value is 10.383($P < 0.000$) which is highly significant.

Unpaired 't' test for control and experimental group: The examination anxiety post test mean score in control group is 34.93(SD=5.71), in experimental group the posttest mean score is 17.83(SD=3.86) and the 't' test value is 11.594 ($P < 0.000$) which is highly significant.

DISCUSSION

Teaching guided imagery to children as a first line of defense against the start of worry and anxiety. Teaching this mindful practice would allow children to gain control of ruminating thoughts, help them learn to relax at an early age, and teach them to manage stress throughout life. Learning to practice these techniques at an early age as a lifelong practice may be worth a pound of prevention against the onset of anxiety and stress that manifest in adulthood.¹³

In this study, in pretest, 57% had unhealthy anxiety, 43% had healthy anxiety, but in posttest 73% students don't have anxiety, remaining 27% also had healthy anxiety in experimental group, because it was improved-by guided imagery techniques, In control group on pretest 63% had unhealthy anxiety, 30% had healthy anxiety and 7% had no anxiety but the unhealthy anxiety was 70% in post test it shows worsen, 30% had healthy anxiety, and there is no reduction in anxiety on exam. Similarly Senthil KR et.al (2011) reported that, in pretest 65% of students had unhealthy anxiety and 35% had healthy anxiety in experimental group and 60% had unhealthy anxiety and 40% had healthy anxiety in control group. In posttest 25% of students had healthy anxiety and 75% had no anxiety in experimental group and 60% had unhealthy anxiety and 40% had healthy anxiety in control group.¹⁴

In experimental group, the exam anxiety mean score was reduced after guided imagery techniques (pre test-33, post test-17.83) but in control group there is no change in mean score (pre test-34, post test-34.93). There was a significant difference seen in experimental group before and after guided imaginary techniques (t value-10.383 & p-value-0.000***), whereas in control group, there is no significant difference seen in pre and post tests (t value-1.721 & p-value-0.096)). This reveals that guided imagery technique is effective in reducing the examination anxiety among school students. Similarly Usha et.al (2011), reported that, for experimental group the reduction in anxiety (75% had no anxiety and 25% had healthy anxiety) after 14 days intervention training was statistically significant, where as anxiety level was same to control group.¹⁵

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The above findings revealed that the guided imagery technique has the significant effect in reducing the examination anxiety.

Further results indicate that, there is no significant association between the level of anxiety and selected demographic variables among control group and experimental groups, such as age, sex, standard of studying, parents occupation, religion, place of residence, type of family, relaxation technique, parental expectation, peer competition, previous failure, psychological support, sleeping hours before the exam & reading habits before the exam.

CONCLUSION

The results indicate that guided imagery technique is effective in reducing the examination anxiety among school students. And also it will help to reduce anxiety of students at all levels of examination to perform good in their academic especially in board examination which is conducted by state and central government. Further research may help guide policy on education to improve the teaching methodology allowing the students to control the anxiety on exam.

Acknowledgement:

The authors express sincere thanks to Prof. Mrs. Jancy Rachel Daisy, M.Sc., Ph.D., Professor, C.S.I Jeyaraj Annapackiam College of Nursing in Madurai and Senthil kumar, Physiotherapist, The Leprosy Mission Hospital, Champa, Chatisgarah for their guidance and support. We also thank to all participants for their extended co-operation and support.

Contribution of Each Author

Mrs. Suganya P involved in study conceptualization and design, preparing the semi structural questionnaires, getting approval and ethical clearance, data collection, and preparation of the manuscript.

Mr. Pitchaimani G involved in analysis and interpretation of data and preparation of the manuscript.

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Effectiveness of Programmed Learning Material in Learning Cognitive Domain of B.Ed Students

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ABSTRACT

The present teaching techniques needs revised thinking to make learning more effective for students. In fact the teaching methodology should be such by which the students can be involved in reading, thinking, problem solving and then learning by their own efforts. It becomes more important at B.Ed. Level. For this purpose self-learning method is a very effective media. There are several Self Learning Techniques in which learner can learn by their own pace. Inamdar, J.A (1981), Suthar, K.S (1981), Debi Meena Kumari (1989), concluded that Programmed learning method was more effective. Can the learning of cognitive domain be made easier by using Programmed Learning Material? Is the Programmed Learning Method similarly effective for boys and girls? The investigator has thought about all such crucial questions for undertaking this research. Hence the topic “Effectiveness of Programmed Learning Material in Learning Cognitive Domain of B.Ed Students” is selected for the presentation.

Keywords: *PLM-Programmed Learning Material.*

Bloom's Taxonomy was created in 1956 under the leadership of Dr Benjamin Bloom in order to promote higher forms of thinking in education, such as analyzing and evaluating concepts, processes, procedures, and principles, rather than just remembering facts (rote learning). It is most often used when designing instruction or learning processes (Instructional Design)

Researcher selected this cognitive domain because it involves knowledge and the development of intellectual skills (Bloom, 1956). This includes the recall or recognition of specific facts, procedural patterns, and concepts that serve in the development of intellectual abilities and skills. There are six major categories of cognitive processes, which are listed in order below, starting from the simplest to the most complex. The categories can be thought of as degrees of difficulties. That is, the first ones must normally be mastered before the next one can take place.

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Statement of the Problem

Effectiveness of Learning Cognitive Domain of B.Ed Students through Programmed Learning Material

OBJECTIVES

The researcher decided the following objectives for the present study.

1. To study the effectiveness of Program Learning Material in learning Cognitive Domain of B.Ed. Students
2. To compare the effectiveness of Program Learning Material on the academic achievement of Male & Female students of B.Ed in learning Cognitive Domain

Hypotheses

The following hypotheses were prepared for the present study.

HO1 There is no significant difference in the mean score academic achievement of Experimental and Control Test.

HO2 There is no significant difference in the mean scores of academic achievement of Male and Female students of B.Ed learnt through Program Learning Material.

Limitation and Delimitation

- The strength of B.Ed students was 92 in Indian Institute of Teacher Education, which were selected as a sample in this research, but data is collected and treatment could be given to 46 students out of 92 thus remains the limitation of the study.
- The study is delimited to the students of Indian Institute of Teacher Education English Medium B.Ed College Gandhinagar City.

Definition of Key-words

- 1) **Academic Achievement:** Academic Achievements refers to the scores obtained on self constructed achievement in the form of restricted response item (MCQ & Fill in the Blanks).
- 2) **B.Ed Students** – B.Ed Students refers to the students of education, studying in B.Ed English Medium College at Gandhinagar City.
- 3) **Effectiveness** – Effective refers to the difference between the mean scores of Academic Achievement of Experimental Group and Control Group.

Variable

The following are the variables included in the present study.

Independent Variable:

Programmed Learning Method

Dependent Variable:

Academic Achievement of the B.Ed Students

Moderate Variable: (Sub-Independent Variable)

Gender: Male (A1) , Female (A2)

Control Variable:

- 1) Gandhinagar City.
- 2) B.Ed English Medium College.
- 3) B.Ed Students.
- 4) Co – Educated College

Population and Sample

Population for the present study was – All the Students of Indian Institute of Teacher Education of Gandhinagar City studying in B.Ed. The B.Ed trainees of the year 2014 – 2015 were included in the population. The selection of sample was done by Purposive Sampling Technique. The strength of B.Ed students in Indian Institute of Teacher Education were 92 which were divided in to two equal groups through random sampling.

Method →	Experimental Group	Control Group
Gender ↓		
Male	12	19
Female	34	27
Total →	46	46

Research Method and Research Design:

Experimental Method of Research was used for the present study. The experiment of the present research was to check the effectiveness of PLM for learning Cognitive domain for B.Ed. Trainees For the present study the researcher selected True – Experimental design post test two equivalent group design.. The figurative description of which can be made as given below.

Group	Treatment	Post Test
E	X ₁ (PLM)	T2
C	-	T2

Treatment:

The researcher went through the syllabus of B.Ed which was prescribed by their universities and then went through many references materials such as textbooks, internet etc. It was found that the students of B.Ed faced many difficulties in understanding the concept of Cognitive Domain of Bloom's Taxonomy and not able to use it in an accurate way in their lessons for developing higher level thinking among their students. The researcher thought that the use of new technologies is one of the innovative ways for teaching cognitive Domain of Bloom's Taxonomy. With a view to overcome the problem the researcher had tried a humble and sincere effort to teach methodology content through Program Learning Material.

Effectiveness of Programmed Learning Material in Learning Cognitive Domain of B.Ed Students

Tools for Data Collection

For Data Collection researcher Constructed teacher made Post test on the basis of blue print. In which 20 Questions were asked. Equal mark (1) was given to each question. The post test was of multiple choice questions type.

Data Analysis

- To access the effectiveness of PLM t-value was found.
- For rejection or acceptance of hypothesis t-value was found Hypothesis wise.

Hypothesis	Group	N	M	SD	SED	C.R.	Remarks
Ho ₁	Control Group	46	7.93	1.90	0.32	35.31	Significant at 0.01 level
	Experimental Group	46	19.09	0.98			
Ho ₂	Male of Exp. Group	19.00	12	1.28	0.40	0.29	No Significant Difference
	Female of Exp. Group	19.12	34	0.88			

FINDINGS

- ☐ Experimental group was better than control group students on academic achievements of Program Learning Material in learning Cognitive Domain of B.Ed students.
- ☐ There was no real difference between male and female on academic achievements of Program Learning Material in learning Cognitive Domain of B.Ed students.

EDUCATIONAL IMPLICATION

The educational implications of the present research are as mentioned below.

- ☐ Such programmes are very helpful for curriculum development as curriculum developers can make use of such self learning devices in curriculum development.
- ☐ The Program is useful for classroom teaching.
- ☐ Promotes situated and authentic learning.
- ☐ Promotes learning from multiple perspectives and contexts.

CONCLUSION

From the Conclusion and finding obtain from study we can say that PLM is far effective than traditional method, Hence such a new innovative experiments should be go on in future New researches play an important role for the development and progress of the nation. In the present study the findings of the study, educational implications and suggestions are provided or study. The present study will prove helpful for the teachers, students, government and educational implications.

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Emotional Intelligence, Anger and Coping Strategy among Chronic Kidney Disease Patients

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ABSTRACT

The aim of the study was to study the emotional intelligence, anger and coping strategy among chronic kidney (CKD) disease patients. A sample of 60 (30 male, 30 female) selected from various hospitals of Pune city. The tools used for the study were Emotional intelligence scale (Thingujam and Ram, 2000), STAXI-II (Speilberger, 1999) and Ways of coping questionnaire (Lazarus and Folkman, 1988). After the data collection statistical analysis was done by Pearson product-moment correlation and 't test'. The result found that there is a negative correlation between emotional intelligence and trait anger. It also found a positive correlation between problem focused coping and emotional intelligence. This study also suggested that female patients are higher on emotional intelligence and problem focused coping strategy than male patients. The findings of the study could provide a better understanding of chronic kidney patients' mental state and their well-being.

Keywords: CKD, emotional intelligence, Pune.

India is a very vast country. Along with the present era of globalization, the life of individual has also developed to a great extent as in life style, career etc. Yet these advantages have led to a highly stressful life and many emotional disturbances, as well as many critical health problems. Among them, chronic kidney disease (CKD) is a worldwide public health problem and is now recognized as a common condition that is associated with an increased risk of many mental health problems. In India's 1 billion populations, it is found that there are 7.84 million CKD patients. (S.C Dash, S.K Agarwal 2006). The most common causes of CKD are diabetes mellitus, hypertension. Together, these cause approximately 75% of all adult cases. In a study by Mark (2005), it was found that persons coping with kidney disease commonly cite feelings, such as anger, fear, depression, anxiety, confusion, frustration and helplessness. This type of mental problems is mainly due to the long onset and poor prognosis of the disease. So it can be helpful to know about their emotional intelligence, their anger and how they cope with daily

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stressors. And the findings can be used to provide them a less painful life, healthy family atmosphere and positivity for well being of them. So that with better psychological conditions they can recover in a better way. In a study by Close and Davies (1986) on emotional difficulties in diabetes mellitus, it was found that 28% people had appreciable emotional or behavioral difficulties and 12% considered themselves 'possibly depressed', poorer self esteem, and a greater external locus of control. Pedrites and Furnham (2000) showed that female showed high emotional intelligence and it was supported by Katyal and Awasthi (2005), on the gender difference of emotional intelligence among adolescent female showed higher EI than male. In exploring the relationship of emotional intelligence with physical and psychological health functioning by Tsaousis and Nikolau (2005), it was observed that EI is negatively associated with poor general health and other health related behaviors, such as smoking, drinking whereas, Haffey and Kerry (2006) found that Child reports of adjustment and emotional intelligence and indicated that higher emotional intelligence scores may predict better overall adjustment, as well as better functioning in terms of internalizing and externalizing behaviours. A research done by Deshields, Taylor(1989) it was found that the chronic patient groups differed significantly from the non patient controls in reporting more anger in general, greater frequency of anger experiences, and a tendency to express anger more outwardly..Polonsky (2002)focused on emotional and quality-of-life aspects of diabetes management, it was that found patients with diabetes commonly feel overwhelmed, frustrated, or “burned out” by the daily hassles of disease management and by the unending, often burdensome self-care demands, it was found that both medical and psychosocial aspects of diabetes may negatively affect health related quality of life; in turn, impaired health related quality of life may negatively influence diabetes self-management. The latest research by Staicu and Cutov (2010) about the negative effects of anger and hostility, it was found that there is a connection between anger, hostility and aggressiveness and various health risks and the intervention for healing or preventing these diseases should not only be pharmacological, but also psychological, therapists should insist on ways of managing these behaviours in order to prevent diseases and any kind of risk that they could involve. Tietz and Vidmar (1972) found about the impact of coping styles on the control of juvenile diabetes that the reactions to the onset of diabetes did influence the styles of coping with fears, anxieties and guilt.The study by Genco and Grossy (1999), it was found that emotion focused coping measures of stress associated with financial strain and distress manifest as depression, are significant risk indicators for more severe periodontal disease in adults in an age-adjusted model in which male, smoking, diabetes mellitus etc. are significant risk factors. Findings occurred in research done by Keefe and Afflack (2003) that female chronic pain patients showed more problems focused coping than men, and were less likely than men to report negative mood. Harwood and Wilson (2008) shows that the stressors experienced in the early stages of CKD are different than those experienced by individuals on dialysis. and in the same year, Varonica (2008) studied about coping strategies of mothers who have a child with chronic illness, determine mothers’ understanding of disease before and after diagnosis, assess mothers’ perceived needs for support when coping with their child’s illness it was found that early diagnosis of illness improved mothers’ coping. Jordan and Ashkanasy (2005) found that

emotional intelligence moderates employees' emotional reactions to job insecurity and their ability to cope with associated stress. In this respect, low emotional intelligence employees are more likely than high emotional intelligence employees to experience negative emotional reactions to job insecurity and to adopt negative coping strategies. Ciarrochi and Chan (2001) studied about low emotional intelligence and mental illness; it was found that low emotional intelligence may contribute to problems in interpersonal relationships and in coping with stress.

METHODS

Hypotheses

- i. The female CKD patient would be score higher in problem focused coping strategy than male patients.
- ii. The female CKD patients would score higher on emotional intelligence than male patients.
- iii. The male CKD patients with diabetes would score higher on emotion focused coping than male patients without diabetes.
- iv. There is a negative correlation between emotional intelligence and trait anger.
- v. There is a positive correlation between emotional intelligence and problem-focused coping strategies.

Variable and tools

The variables of the study are emotional intelligence, anger and coping strategies.

The tools used in the study were:

Emotional Intelligence Test The test used in assessing sample in the present study is the Indian adaptation (by Thingujem N.S and Usha Ram, 2000) of the emotional intelligence scale by Schutte having 33 items.

The State Trait Anger Expression Inventory - 2 STAXI-2 is a 57 items inventory ,which consists of a 4-point scales ,measures the intensity of anger as an emotional state (state anger) and the disposition to experience angry feelings as a personality trait(trait anger). It is given by Spielberger (1999).

Ways of Coping Questionnaire, The test used for assessing the present study is the English version of 'ways of coping questionnaire' by Lazarus and Folkman (1988).

Sample

The samples used in the study are selected by purposive sampling method. 60 patients of chronic kidney disease, 30 patients with diabetes (15 male, 15 female) and 30 patients without diabetes (15 male, 15 female) from various hospitals of Pune city. Their age range is from 45-55 years. Most of the patients were multilingual, and spoke Marathi, Hindi and English. The patients were from various socio-economic statuses, ranging from lower middle class to upper middle class. The female patients were mostly housewives, whereas, the male patients were from different occupations.

Method of Data Collection

The individual administration of the test was done on the chronic kidney disease patient with diabetes and without diabetes. Firstly, the repo was formed and all possible information about the test was given and patients were asked to fill up the personal data sheet with all relevant information about them. Then proper instructions were given. All doubts were clarified. There was no time limit given, but had instructed to complete the test as soon as possible. First the emotional intelligence test, then the anger inventory and coping questionnaire was administered serially.

Statistical Analysis

The statistical analysis in this study would include the t test used to study the gender difference and difference between patients with diabetes and patient without diabetes. The Pearson's Product-Moment correlation to study the correlation among emotional intelligence, trait anger and coping strategies.

RESULTS

Table 1 shows the gender difference in problem focused coping among the patients

Variables	Gender	Mean	SD	df	t value	Cohen's D
Problem focused coping	male	30	3.09	58	8.24	1.18
	female	35	5.12			

The table 1 shows the obtained values in problem focused coping. It shows that the obtained value of female patients (M = 35, SD = 5.12) is higher (t = 8.24, p < 0.05) than male patients in problem focused coping. According to Cohen (1988), the values up to 0.2 are small effect, 0.5 is medium effect and above 0.8 is large effect. So the obtained value is large size, which shows (Cohen's D = 1.18) a very high difference among the groups. In this, the hypothesis 1 stating that the 'female patient would be score higher in problem focused coping strategy than male patients' is accepted.

Table 2 shows the gender difference in emotional intelligence among patients

Variable	Gender	Mean	SD	df	t value	Cohen's D
Emotional intelligence	Female	110.57	8.71	58	7.69	1.98
	Male	100.33	7.70			

Table 2 shows that the value of emotional intelligence of female patients (M= 110.7, SD = 8.71) is higher (t = 7.69, p < 0.05) than male patients (M = 100.33, SD = 7.70). The Cohen's d shows that there is large effect size (Cohen's D = 1.98) and a very high difference among the two

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groups. So the hypothesis 2 that ‘the female patients would score higher on emotional intelligence than male patients’ is accepted.

Table 3 shows the difference between male patient with diabetes and without diabetes

Variable	Gender	Diabetes	Mean	SD	df	t value
Emotion focused coping	male	No	32.8	4.24	28	0.59
	male	Yes	33.7	4.60		

The table 3 indicates that the obtained value of male patients with diabetes ($M = 32.8$, $SD = 4.24$) is higher ($t = 0.59$, $p > 0.05$) than male patient without diabetes in emotion focused coping. However, the difference is not significant. Hence, the hypothesis 3 that ‘the male patients without diabetes would score higher on emotion focused coping than male patients with diabetes’ is rejected.

Table 4 shows the correlations among emotional intelligence; trait anger and problem focused coping strategy

Variables	E.I	t. anger	PFC
E.I	1		
T. Anger	-.47	1	
PFC	.29	-.071	1

According to the findings obtained from table 4, states that there is negative correlation between emotional intelligence and trait anger ($r = -0.47$), so here the hypotheses 4 that ‘there is a negative correlation between emotional intelligence and trait anger’ is accepted. Which means when EI will increase the trait anger may decrease. It also shows a positive correlation between problem focused coping strategy and emotional intelligence ($r = 0.29$). By this hypothesis 5 that ‘there is a positive correlation between emotional intelligence and problem-focused coping strategies’ is also accepted. It states that increase in EI will signify an increase in problem focused coping. However, a very low negative relationship ($r = -0.071$) was obtained between problem focused coping and trait anger.

DISCUSSION

After analyzing the obtained findings, it was found that there is a negative correlation between emotional intelligence and trait anger and a positive relation between emotional intelligence and problem focused coping. Findings also suggest that there is a significant gender difference in emotional intelligence and problem focused coping.

The first hypothesis is that the female patient would score higher on problem focused coping than male patient. This hypothesis was also accepted in the present study. Similar findings occurred in research done by Keefe and Afflack (2003) that female chronic pain patients showed more problems focused coping than men, and were less likely than men to report negative mood. In this study this hypothesis could be accepted because despite the stereotypical belief that women are very emotional, actually they could be more rational than male at least for the present study and they may focus more on the problem than seeking for emotional support. The result showed a significant difference between female score and male score ($t= 8.24$). Similarly, the second hypothesis is that the female patient would score higher in emotional intelligence than male patients. In a research done by Pedrites and Furnham (2000) showed that female showed high emotional intelligence because they scored high on the “social skills” factor of measured trait EI. However, it was also demonstrated that males believed they had higher EI than female. Another study by Katyal and Awasthi (2005), on the gender difference of emotional intelligence among adolescent female showed higher EI than male. The hypotheses may be accepted because according to our previous hypotheses it was proved that there is a positive relation between emotional intelligence and problem focused coping and that female scored higher on problem focused coping. Hence the result relatively showed a high emotional intelligence of female. At the same time, female are found to be more rational than men in some studies. The result showed a significant difference between male and female scores on emotional intelligence ($t= 7.69$).

The third hypothesis is that the male patients without diabetes would score higher on emotion focused coping than male patients with diabetes. This hypothesis was accepted in the study by Genco and Grossy (1999), it was found that emotion focused coping measures of stress associated with financial strain and distress manifest as depression, are significant risk indicators for more severe periodontal disease in adults in an age-adjusted model in which male, smoking, diabetes mellitus etc are significant risk factors. However, in this study, this hypothesis is rejected. The difference between male patient with diabetes and without diabetes was not significant ($t=0.59$). This finding is supported by DeCoster and Cummings (2004), suggested that patient with type 2 diabetes shows various coping methods, not a particular one is dominant. This hypothesis could be rejected because having two chronic illnesses at a time may not affect the coping style of patients, there way of coping can vary because of individual differences.

The fourth hypothesis is that there is a negative correlation between emotional intelligence and trait anger. In this study, this hypothesis is accepted. Similar result was found in the study by Jordan and Ashkanasy (2005), which is mentioned in the second chapter that people with lower emotional intelligence are more likely to experience negative emotional reactions as anger, frustration to job insecurity than higher emotionally intelligent employees. Other studies as by Salovey and Mayer (1999), Matheson and Jahoda (2005) are also in support of the hypothesis. This hypothesis is accepted as the result showed ($r= -0.47$) a negative correlation between emotional intelligence and trait anger. Similarly, the fifth hypothesis states that there is a positive correlation between emotional intelligence and problem focused coping strategy and this

hypothesis is accepted in this study. Another study by Nolen-Hoeksema and Grayson (1999) supported this hypothesis as it was found that the quality of parenting family environment and emotional intelligence is associated with children's problem-focused coping behaviors. Again some other studies mentioned in the second chapter as Cirrochi and Chan (2001) supported this hypothesis. This current study showed ($r= 0.29$) a positive correlation between emotional intelligence and problem focused coping strategy.

It was already proved by various studies that there is a strong relation between mental health and chronic diseases. In a study by Perlman and Finkelstein (2004), it was found that health related quality of life in dialysis patients is low. Another study by Stewart and Greenfield (1989) about Functional Status and Well-being of Patients with Chronic Conditions, it was found that Patients with multiple conditions showed greater decrements in functioning and well-being than those with only one condition. So this study can prove to be very useful for betterment of mental health of patients with chronic diseases.

IMPLICATION OF THE STUDY

The obtained results in the present study can be very useful in clinical or diagnostic field to assess the need of the patient or to move the treatment from one phase to another. High level of emotional regulation is related with the low production of stress hormone (Wirtz and Kanel 2005). As we can see that the obtained results are somewhat different than the stereotypical notion that men are more rational than women. In this study it was found that women are higher on emotional intelligence and problem focused coping than men, because, another finding of the study is that emotional intelligence and problem focused coping are positively correlated. In clinical purpose, this study suggests that the mental state of female patients may be stronger than male patients and there is a possibility of better and faster recovery of female than male. They would be more motivated and have a better understanding of the problems they face. The male's emotional intelligence skills could be developed by using various techniques or therapies. Another finding suggests that having diabetes does not have an additional effect on patient's psychology. That is may be because having two chronic diseases at the same time does not significantly impair the functioning of patients. In industrial field also, female employees could be given upper hand to make important decisions of business dealings or development. But before generalizing the result, it is very important to conduct the study on a larger sample and with samples from different sectors. This study may provide an effective way to make desired changes and an important base for further research on these variables.

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DECLARATION

I hereby declare that the research work entitled "Emotional Intelligence, Anger and Coping Strategy among Chronic Kidney Disease Patients" is on the basis of the relevant source materials and the field work that I carried out in Pune. The data collected and conclusions drawn in the dissertation are my own and they are not previously published. The books and articles referred are listed in the reference list and the quotations are acknowledged.

Principles of Promoting Quality in Inclusive Education

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ABSTRACT

In every classroom there are some children who have some learning problems. They need a little extra help from teachers to learn. Inclusive education refers to instruction that is specially designed to meet the needs of the exceptional children. It involves designing the physical environment in the classroom (use of ramps) teaching procedures, teaching content and equipment for a particular type of disability. In this case its implementation is not an easy task; it needs thorough investigation, understanding its aims and principles and taking consistent and appropriate measures to make it successful.

Schools are currently undergoing a process of reconstructed educational practice and thinking. The key principles presented in this section centre upon aspects of educational systems, to be crucial in promoting quality in inclusive education and supporting the learners with different types of special educational needs (SEN). These aspects range from national legislation to school level, each of which must be considered within policy frameworks for promoting quality in the inclusive education. Seven inter-connected areas of key principles are presented in detail along with specific recommendations that appear to be necessary for their effective implementation. The ultimate goal of these key principles is to promote participation in inclusive education by ensuring quality educational provision. With this in mind, the key principles are widening participation, Education and training; Organizational culture, Support Structures, Flexible resourcing system, Policies and Legislation can be seen to work towards this goal.

Keywords: *Inclusive education, Disability, Special educational needs (SEN), Organizational culture and Legislation.*

Principle-I: Widening participation to increase educational opportunity for all learners

The goal for inclusive education is to widen access to education and to promote full participation and opportunities for all learners vulnerable to exclusion to realize their potential. When considering the promotion of quality in inclusive education, it is necessary to underline a number of key factors in relation to this goal: Inclusion concerns a wider range of learners than those

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identified as having special educational needs. It is concerned with any learners who are at risk of exclusion from educational opportunities, resulting in school failure;

- Access to mainstream education alone is not enough. Participation means that all learners are engaged in learning activities that are meaningful for them. The promotion of positive attitudes in education is crucial for widening participation. Parental and teacher attitudes towards the education of learners with a wide range of needs appear to be largely determined by personal experiences; this fact needs to be recognized and strategies and resources introduced/implemented to address attitudinal factors. Effective strategies to promote positive attitudes include:
- Ensuring all teachers are trained and feel able to assume responsibility for all learners, whatever their individual needs;
- Supporting the participation of learners and their parents in educational decision-making. This includes involving learners in decisions about their own learning and supporting parents to make informed choices for their (younger) children. At the level of an individual learner's educational career, the following aspects appear to make a significant contribution to achieving the goal of widening participation:
- A view of learning as process – not content based – and a main goal for all learners being the development of learning to learn skills, not just subject knowledge;
- Developing personalized learning approaches for all learners, where the learner sets, records and reviews their own learning goals in collaboration with their teachers and families and is helped to develop a structured way of learning independently in order to take control of their own learning;
- The development of an Individual Education Plan (IEP) or similar individualized teaching programme, for some learners (possibly with more complex learning needs) who may require a more focused approach for their learning. IEPs should be developed to maximize learners' independence and involvement in goal setting and also collaboration with parents and families.
- An approach to learning that aims to meet the diverse needs of all learners without labeling / categorizing is consistent with inclusive principles and requires the implementation of educational strategies and approaches that will be beneficial to all learners:
- Co-operative teaching where teachers take a team approach involving learners themselves, parents, peers, other school teachers and support staff, as well as multi-disciplinary team members as appropriate;
- Co-operative learning where learners help each other in different ways – including peer tutoring – within flexible and well-thought out learner groupings;
- Collaborative problem solving involving systematic approaches to positive classroom management;
- Heterogeneous grouping of learners and a differentiated approach to dealing with a diversity of learners' needs in the classroom. Such an approach involves structured goal

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setting, reviewing and recording, alternative routes for learning, flexible instruction and different ways of grouping for all learners;

- Effective teaching approaches based on targeted goals, alternative routes for learning, flexible instruction and the use of clear feedback to learners;
- Teacher assessment that supports learning and does not label or lead to negative consequences for learners. Assessment should take a holistic/ecological view that considers academic, behavioral, social and emotional aspects of learning and clearly informs next steps in the learning process.
- Strategies for widening participation within mainstream classrooms cannot be implemented in isolation from the context of the wider school and home situation. In order to increase educational opportunities for all learners, a number of inter-connected factors must be in place to support the work of individual teachers. These are outlined in the following sections.

Principle-II: Education and training in inclusive education for all teachers

For teachers to work effectively in inclusive settings, they need to have the appropriate values and attitudes, skills and competences, knowledge and understanding. This means all teachers should be prepared to work in inclusive education in their initial training and then have access to further, in-service training later in their careers in order to develop the knowledge and skills to enhance their inclusive practice in inclusive settings. Training for inclusion involves the acquisition of knowledge and skills in:

- Differentiation and meeting diverse needs that allows a teacher to support individual learning in classrooms;
- Working collaboratively with parents and families;
- Collaboration and teamwork that facilitates teachers working effectively in teams with other teachers as well as a range of educational and other service professionals working within and outside of the school. Alongside training for all teachers for inclusion, teacher-training systems should provide opportunities for:
- The training of specialized teachers in order to maintain and develop specialist resources for supporting all teachers in inclusive settings;
- Shared training opportunities for professionals from different services and sectors in order to facilitate effective collaborative working;
- Training for school/educational organization leaders in developing their leadership skills and vision in line with the promotion of inclusive values and practice;
- Training routes and possibilities for teacher trainers in inclusive education in order for them to deliver the initial and in-service teacher education programmes that promote quality in inclusive education.

Principle-III: Organizational culture and ethos that promotes inclusion

At the level of the school, or other educational organization, a shared culture and ethos based upon positive attitudes towards welcoming a diversity of learners in classrooms and meeting diverse needs in education is crucial. Such a shared culture:

- Includes all stakeholders: learners, their families, teachers and educational staff and the local community;
- Is guided by school/educational organization leaders with a vision for inclusion that includes clear thinking regarding school development, accountability and responsibility for meeting a diverse range of needs. Organizational cultures that are supportive of inclusion result in:
- Practice that avoids segregation in all forms and promotes a school for all, providing equality of educational opportunity for all learners;
- A culture of teamwork and openness to partnership with parents as well as inter-disciplinary approaches;
- Educational practice to meet a diverse range of needs being seen as an approach to developing quality education for all pupils generally, rather than as being focused upon specific groups.

Principle-IV: Support structures organized so as to promote inclusion

Support structures that impact upon inclusive education are diverse and often involve a range of different service professionals, approaches and working methods. Established support structures can act as a support to, or as a barrier to inclusion. Support structures that promote inclusive education are:

- Composed of a range of different specialist services, organizations and resource centre's, and professionals that reflect local level needs. Support structures should be able to respond flexibly to a range of organizational, as well as individual professional and family level needs;
- Co-ordinate both within and between different sectors (education, health, social services etc.) and teams of support personnel;
- Co-ordinate so as to support in the best way possible successful transitions of all learners between different phases of their lifelong
- Learning (pre-school, compulsory, post-compulsory and employment related education).
- Such support structures employ an inter-disciplinary approach that:
- Integrates the knowledge and perspectives of different areas of professional expertise in order to consider learners' needs holistically;
- Uses a participatory approach that requires a change in the locus of control for support and input from support specialists. Decision making regarding support not only involves, but also becomes increasingly led by mainstream class teachers, learners and their families, working in partnership with inter-disciplinary professionals.

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- This requires a major attitudinal shift on the part of specialist professionals, as well as changes to their practice.

Principle-V: Flexible resourcing systems that promote inclusion

Funding policies and structures remain one of the most significant factors determining inclusion. Limited or no access to certain facilities and provision may actually hinder inclusion and equality of opportunity for learners with SEN. Mechanisms for the funding and resourcing of education that promote – rather than hinder – inclusion are guided by financing policies that:

- Are geared towards providing flexible, effective and efficient responses to learners' needs;
- Promote inter-sectoral collaboration from relevant services;
- Ensure co-ordination between regional and national level funding structures. Flexible resourcing systems can be seen to facilitate:
- Decentralized approaches to the allocation of resources that enable local organizations to support effective inclusive practice. Decentralized funding models are likely to be more cost-effective and more responsive to the needs of local populations;
- Opportunities for financing preventative approaches in education, as well as effective support for learners identified as having specific needs;
- Possibilities for resourcing inclusion work in schools or other educational organizations based on a range of factors and not solely based upon diagnosis of individual learners' needs. Such approaches provide flexibility in using financial resources according to identified organizational needs and requirements within the context of local or national policies.

Principle-VI: Policies that promote inclusion

The promotion of quality in inclusive education requires a clearly stated policy. The goal of the school for all should be promoted in educational policies as well as supported via school ethos and leadership, as well as teachers' practice. Policies that aim to promote quality in inclusive education:

- Take account of international level policies and initiatives;
- Are flexible enough to reflect local level needs;
- Maximize the factors supporting inclusion – as outlined above – for the individual learner and their parents at the teacher and educational organization levels. To implement inclusive education, the goals of the policy should be effectively communicated to all members of the educational community. Educational leaders at all levels – national, regional, community, as well as organizational – have an essential role in translating and implementing policy that promotes quality in inclusive education. Policies that promote quality in inclusive education need to address attitudes towards learners with diverse needs, as well as propose action to meet their needs. Such policies: - Outline teacher,

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school/educational organization and support structure/service level responsibilities, as well as,

- Outline the support and training that will be provided for all stakeholders in order for these responsibilities to be fulfilled. Policies for promoting inclusion and meeting individual learners' needs within all educational sectors are 'integrated' across sectors and services. Such policies should be multi-phase and trans-sectoral and actively encourage inter-sectoral co-operation ensuring that:
- At national and local levels, policy makers from the educational, health and social sectors need to work co-operatively to devise policies and plans that will facilitate and actively support an interdisciplinary approach in all phases of lifelong learning;
- Flexible frameworks of provision that support inclusive practice are applied to all sectors of educational provision. The inclusion of learners with diverse needs within the secondary sector, transition from school to employment phase, post compulsory, higher and adult education needs to be given the same degree of focus as within the pre-primary and primary sectors;
- Policies aim to facilitate sharing of good practice and support research and development for new educational approaches, methods and tools. Whilst in the short term there should be a recognizable separate action plan or strategy for inclusive education within general policies, in the long term, inclusion in education should be 'a given' within all educational policies and strategies. Arrangements for monitoring the implementation of policies should be agreed upon at the policy planning stage. This involves:
- Identifying suitable indicators to be used as a tool for monitoring developments in policy and practice;
- Promoting partnerships between schools, local policy makers and parents to ensure greater accountability for the services provided;
- Establishing procedures for the evaluation of the quality of provision for all learners in the educational system and in particular,
- Evaluating the effect of policies in relation to their impact upon equality of opportunity for all learners.

Principle-VII: Legislation that promotes inclusion

All legislation that potentially impacts upon inclusive education within a country should clearly state inclusion as a goal. Consequently, legislation across all public sectors should lead to the provision of services that enhance developments and processes working towards inclusion in education. In particular, there should be:

- 'Integrated' legislation across sectors leading to consistency between inclusive education and other policy initiatives;
- One legal framework covering inclusive education in all educational sectors and levels. Comprehensive and co-ordinate legislation for inclusive education that fully addresses issues of flexibility, diversity and equity in all educational institutions for all learners. It

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ensures that policy, provision and support are consistent across geographical areas of a country/region. Such legislation is based upon:

- A 'rights approach' where individual learners (along with their families or careers as is appropriate) can access mainstream education and necessary support services within all levels;
- The alignment of national legislation with international agreements and statements concerning inclusion.

CONCLUSION

In considering the main messages evident across the Agency's work, it can be seen that the continuing commitment of countries to promoting inclusion will be indicated by a decrease in the number of learners in fully separate (segregated) provision across the world. It is argued that the necessary systemic changes in policy and provision aimed at promoting quality in inclusive education can be guided by the inter-related and mutually supporting key principles outlined in the sections above.

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Achievement Motivation of Children of Employed Mothers and Homemakers

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ABSTRACT

Ever since women began entering the work force the debate has been looming over mothers who enter the work force and those who choose to remain at home with their children. Such concerns are whether or not having a working mother negatively affects their children emotionally and/or academically. Another concern is the stress level a working mother faces daily. The present study assessed the impact of maternal employment on achievement motivation of adolescents. The sample consisted of 80 children of employed mothers and 80 children of homemakers. Further the sample was bifurcated on the basis of gender (40 boys and 40 girls). Costello Achievement Motivation Scale (CAMS) adapted by Misra, O.P & Srivastava, S.K, 1990 was administered to the selected sample to assess their achievement motivation. The obtained data was treated with the help of Mean, SD, t-test and ANOVA. Analysis of the results revealed that children of employed mothers had higher achievement motivation as compared to the children of homemakers. Further, findings indicated that adolescent girls of employed mothers scored higher on achievement motivation as compared to adolescent boys of homemakers.

Keywords: *Achievement Motivation, Employed mothers, homemakers, Adolescent boys, Adolescent girls.*

Adolescence is one of the important periods of life. It is characterized by innumerable and unique. Motivation can be defined as the driving force behind all the actions of an individual. The influence of an individual's needs and desires both have a strong impact on the direction of their behaviour. Motivation is based on emotions and achievement related goals. There are different forms of motivation including extrinsic, intrinsic, and psychological and achievement motivation. There are also more negative forms of motivation can be defined as the need for success or the attainment of excellence. Individuals will satisfy their needs through different means, and are driven to succeed for varying reasons both internal and external. Family, which plays an important role in the personality development of adolescents, is undergoing structural, emotional and interactional transformations. There is a great contribution of mothers in shaping

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the personality of their children. In recent years owing to spread of education, search of the identity and introduction of technological changes, increasingly large number of women in India is entering in the job market. Rapid expansion in women's education in the post-independence period has improved the possibility of their employment. Today there is no profession in which women have not entered. This has led to radical shift in the traditional role of mother as a "care taker" to a "bread earner" and has altered child rearing goals and practices. Hence, an attempt is made to see the effects of it on achievement motivation of their adolescents.

A working mother can be defined as any woman who works outside the home and has children. Whereas, a homemaker is the one who has children but does not work outside the home. Working mothers and homemakers affect their children in different ways because of their different dynamics.

Achievement motivation have been considered as an extended person- intrinsic motivation showing a pattern of actions, planning and feelings connected with striving to achieve some internalized standards of excellence. Need for achievement has been regarded as an individual's personality affective person's behaviour. It is also regarded as a learned motivation.

Achievement Motivation is the attitude to achieve rather than the achievements themselves. It can be considered as extended person-intrinsic motivation because its reinforcement is delayed. It arises from an interaction within the person. Achievement motivation is "a pattern of planning of actions and of feelings connected with striving to achieve some internalized standard of excellence, as contrasted for example, will power or friendship" As academic achievement is not a function of cognitive variable alone the emphatic stress on the contribution of the psychological variable is imperative. As such this of the psychological variable is of prime importance, what percentage of proportion variance is attributable by them towards the criteria, needs elaboration and quantification.

A mother is particularly important not because she has special skills but because she is with her children for a much greater time than any other person and her instructions reflects a very strong influence on attitudes, abilities and behaviour of children. Most of those children who are successful and well-adjusted come from homes where parental attitudes are favourable and a wholesome relationship existed between children and parents (Aeri, P. and Jain, D. 2010). According to Lyn Cragge (2006), those mothers who are high educated and working are more sensitive to their children.

Hangal S. & Aminabhavi, V. A. (2007) have found that the adolescent children of home makers have significantly higher self-concept. The children of home makers have significantly higher self-concept and higher achievement motivation than the children of employed mothers. The female children of home makers are having significantly higher emotional maturity compared to the male children of home makers. The children of employed mothers are more socially maladjusted and lacked independence to a very highly significant level compared to the children of home makers. Hock, McBride & Gnezda (2004) have revealed that there existed a positive

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relation between maternal separation anxiety and children's anxieties and separation from their mothers. This is perceived as a threat to the child's well-being and/or to her own psychological equilibrium. Such anxiety may be reflected in feelings of worry, sadness, or guilt.

Since working mothers spend a substantial amount of time outside home, they try to give their children quality time in which they can nurture them. It is exclusively children's time. However things are a little different for homemakers. They do spend more time with their children but that time is not necessarily quality time because they simultaneously have to look after the children and do the household chores. The topic of this research is to study how mother's employment or unemployment affects their children's achievement motivation.

OBJECTIVES

There are five main objectives studied in this paper:

1. To compare the achievement motivation of children of employed mothers and homemakers.
2. To compare the achievement motivation of sons of employed mothers and homemakers.
3. To compare the achievement motivation of daughters of employed mothers and homemakers.
4. To compare the achievement motivation of sons and daughters of employed mothers.
5. To compare the achievement motivation of adolescent boys and girls.

Hypotheses:

The following hypotheses were framed for the purpose of present study:

1. There will be no significant difference on achievement motivation of children of employed mothers and homemakers.
2. There will be no significant difference on achievement motivation of sons of employed mothers and homemakers.
3. There will be no significant difference on achievement motivation of daughters of employed mothers and homemakers.
4. There will be no significant difference on achievement motivation of sons and daughters of employed mothers.
5. There will be no significant difference on achievement motivation of adolescent boys and girls.

METHOD

Sample

Total sample comprised of 160 adolescents, 80 children of employed mothers and 80 children of home-makers were included in the sample. Further, sample was bifurcated according to gender (40 girls and 40 boys). The adolescents studying in 11th and 12th standard in the age range of 17 to 19 years were selected from different schools of Delhi.

Table 1: Gender wise distribution of the sample

Employed Mothers		Home Makers	
Boys	Girls	Boys	Girls
40	40	40	40
Total=80		Total=80	

Tools Used

- (a) **The personal data sheet** was prepared to collect the information regarding student's age, standard (class), gender, their mother's qualification, mother's employment status etc.
- (b) **Costello achievement motivation scale (CAMS-adapted by Misra, O.P & Srivastava, S.K, 1990)** was used to assess achievement motivation of children. It consists of 24 items, which can be answered by making a tick (√) mark under "Yes" or "No" category. Question no. 2,3,5,7,9,11,13,17,19,20,22 and 24 are given one mark if answered positively by the subject. These items will be assigned zero if answered in negative manner. Likewise item no. 1,4,6,8,10,12,14,15,16,18,21, and 23 are awarded one mark if answered in negative manner. These items are assigned zero if answered in positive manner. Maximum possible score is 24. A high score reflects high achievement motivation.

Statistical Analysis

The collected data were classified and tabulated in accordance with the objectives to arrive at the meaningful and relevant inferences by using arithmetic mean, standard deviation, t-test and ANOVA.

RESULTS AND INTERPRETATION

To examine the significance of difference between children of employed mothers and homemakers on their achievement motivation, obtained data was treated with the help of Mean, SD, t-test and Analysis of variance (2x2) statistical techniques. The outcomes of the analysis are presented in the tables (table 2, 3, 4, 5, 6 and 7).

Table 2: Mean, SD and t values for achievement motivation of children of employed mothers and homemakers.

Children	N	Mean	Std. Deviation	t
Employed mothers	80	16.72	2.66	2.71**
Homemakers	80	15.69	2.156	

Table 2 shows significant difference between the children of employed mothers and homemakers on their achievement motivation ($t=2.71$, $p<0.01$). The Mean values of the children of employed mothers and homemakers son achievement motivation are 16.72 and 15.69 respectively. It reveals that the children of employed mothers are having high achievement motivation than the children of homemakers. Hence, Null hypothesis is rejected.

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Table 3: Means, SDs and t values of Sons of employed and non-employed mothers on achievement motivation

Sons	N	Mean	Std. Deviation	t
Employed Mothers	40	15.65	2.38	.650
Homemakers	40	15.32	2.08	

The comparison of scores of sons of employed mothers and homemakers on achievement motivation is performed in the table 3, which shows that there is non-significant difference between sons of employed mothers and homemakers on achievement motivation ($t=.650$). Hence, Null hypothesis is not rejected.

Table 4: Mean, SD and t values of Daughters of employed mothers and homemakers on achievement motivation

Daughters	N	Mean	SD	t
Employed Mothers	40	17.80	2.50	3.32**
Homemakers	40	16.05	2.19	

Table 4 indicates that daughters of employed mothers and homemakers differ significantly on achievement motivation. The obtained t-value(3.32) is significant at 0.01 level. The mean values of the daughters of employed mothers and homemakers on achievement motivation are 17.80 and 16.05 respectively. It means that daughters of employed mothers are having high achievement motivation as compared to the daughters of homemakers. Hence, Null hypothesis is rejected.

Table 5:Mean, SD and t values of Sons and Daughters of employed mothers on achievement motivation

Gender	N	Mean	SD	t
Girls	40	17.80	2.50	3.94**
Boys	40	15.65	2.38	

Table 5 shows that there are significant differences between sons and daughters of employed mothers regarding their achievement motivation as the obtained t-value (3.94) is significant at 0.01 level. The Mean values of daughters and sons of employed mothers on the achievement motivation are 17.80 and 15.65 respectively. It reveals that the daughters of employed mothers scored higher on achievement motivation as compared to the sons of employed mothers. Hence it leads to rejection of the null hypotheses.

Table 6: Mean, SD and *t* values of Sons and Daughters of homemakers on achievement motivation

Gender	N	Mean	SD	t
Girls	40	16.05	2.19	1.51
Boys	40	15.32	2.08	

The comparison of scores of sons and daughters of homemakers on achievement motivation is performed in the table 3, which shows that there is non-significant difference between sons and daughters of homemakers on achievement motivation ($t=1.51$). Hence, Null hypothesis is not rejected.

Table 7: 2x2 ANOVA on achievement motivation of children of employed and unemployed mothers.

Source	Sum of Squares	df	Mean Square	F
Mothers	43.056	1	43.056	8.17**
Gender	82.656	1	82.656	15.68**
Mothers * Gender	20.306	1	20.306	3.85
Error	822.175	156	5.270	

The mean score of mothers (employed and homemakers) with gender (boys and girls) was analysed by 2x2 factorial design (table 6). A significant difference was found for mothers (employed and homemakers) and gender. It is observed that the mothers having F value 8.17 and gender ($F=15.68$) are significant at 0.01 level of confidence. It indicates that difference in mothers (employed and homemakers) and gender affects the achievement motivation. The interactional F value (3.85 df 1 and 156) (mothers x gender) is not significant at any level of confidence.

DISCUSSION

The purpose of this study was to examine the achievement motivation of children of employed mothers and homemakers. The result showed that the achievement motivation is higher for children of employed mothers than children of homemakers (table-2). In table 3 & 4, comparison of employed mothers and homemakers in respect of gender separately, results showed girls of employed mothers and homemakers differ on achievement motivation and girls of employed mothers are higher on achievement motivation in contrast to girls of homemakers. Furthermore, no significant difference exists between boys of employed mothers and home makers. Mancini and Pasqua (2012) have studied on mothers' actual time spending with their children. Results shown that working mothers, with respect to non-working ones, tend to reduce the “basic care” time, but not “quality care” time devoted to their children (reading stories or helping them with homework, taking their children to a museum or to theatre). Therefore, even if working, they may be able not to reduce the time devoted to activities which are more likely to positively

influence the school results of their children. Saini (2005) conducted a study on family environment and academic achievement of children of working and nonworking mothers. Major findings of the study revealed that children of working mothers were more independent than children of non-working mothers and children of working mothers were higher in academic score than those of the children of non-working mothers. A research study by Sharma and Sharma (2010) also states that the only child of working mothers has higher need for achievement as compared to those whose mothers were not working. Goswami, M. (2000) conducted a study on Achievement Motivation and Anxiety among the Children of Working and Non-working Mothers Studying in Secondary Schools of Shillong. The findings indicated that children of working mothers were more achievement oriented than the children of non-working mothers.

Since the relationship with mother is the most significant relationship, it has the power to influence individuals strongly in many areas of life. Also in our culture and religion mother is highly regarded and we are inclined to follow in the footsteps of the mother. Therefore the higher need for achievement in the children of working mothers can be explained with reference to the mother-as-a-role-model theory (Hoffman, 1998). That is, the children of working mothers see their own mothers as their role models and in an attempt to be like her they have a higher need for achievement. They aspire to be like their mothers by being better at academics, succeeding in their careers and they also set their goals higher and work hard to achieve them. However for children of nonworking mothers, their mother-as-a-role model in terms of career is absent.

Quality of mothering is another factor that might contribute to the high need for achievement in children of working mothers. Working mothers might encourage their children to become more self-sufficient and independent at an earlier age and this early independence training may be translated into high need for achievement and competence (Ahmad, 2002). In our culture and country since traditionally men work outside home and mothers stay at home, so the working-mother-as-a-role model theory can be used as an explanation to explain the results of this study. Children of working mothers tend to see their mothers as role models and thus have a higher need for achievement. Also working mothers tend to give their children quality time and parenting which might affect their need for achievement. They might be more actively involved in their children's academic activities. Hangal and Aminabhavi (2007) assessed the impact of maternal employment on the Self-concept, Emotional Maturity and Achievement Motivation of the Adolescents children of Employed mothers and Home makers. The results revealed that the adolescent children of homemakers have significantly higher self-concept. It was also noticed that children of employed mothers have high emotional maturity and female children of employed mothers are highly achievement oriented.

Analysis of table-5 showed that girls and boys of employed mothers differ significantly from each other on achievement motivation and girls of employed mothers possess high achievement

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motivation as compared to boys of employed mothers. Linnenbrink and Pintrich (2002) examined research pertaining to student motivation and four key components that included academic self-efficacy, attributions, intrinsic motivation, and achievement goals. Males and females were found to have different competence-related beliefs during childhood and adolescence (Wigfield & Eccles, 2002). Results revealed that boys had higher competence beliefs in sports activities and math compared to girls. However, girls had higher competence beliefs in reading, English, and social activities compared to boys. Linnenbrink and Pintrich posited that competence beliefs are important because they predict performance and task choice. These beliefs also affect the student's motivation to succeed and achieve a goal. Other researchers have investigated gender differences in future orientation and motivation (Greene & DeBacker, 2004). This meta-analysis examined differences in orientation and motivation across several studies. They concluded that females typically pursue a greater array of goals compared to males. Further, Aminabhavi and Hangal (2007) also found out that female children of employed mothers have significantly higher need for achievement as compared to the male children of employed mothers.

CONCLUSION

1. The findings clearly indicated that maternal employment had positive impact on achievement motivation of their children.
2. Children of employed mothers had higher achievement motivation as compared to the children of homemakers.
3. Daughters of employed mothers scored higher on achievement motivation as compared to the daughters of homemakers.
4. Daughters of employed mothers had higher achievement motivation than the sons of employed mothers.

RECOMMENDATIONS

Additional research can be conducted to study the effects of maternal employment on the children's achievement motivation and other factors that might be contributing to the children's motivation for achievement can be studied.

A study along the same lines can be conducted which can also study parenting style of mother and how it influences the child's achievement motivation for a better understanding of the variables operating behind the achievement motivation of children of employed mothers and homemakers.

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Development and Validation of Religious Belief System Scale

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ABSTRACT

The literature cites multiple definitions for religiosity, with little consensus among researchers. Religiosity has been associated with a myriad of positive outcomes in both adolescents and adults. Religiosity refers to the degree to which a person adheres to his or her religious values, beliefs and practices and uses them in daily life. Religiosity is still an emerging concept in the developing countries such as India, though rich culture has enriched in the past. Confining to various definitions of Religiosity the study attempts to evolve a Religious belief System scale in an Indian context. With exploration of literature and expert reviews, various attributes of belief System scale was initiated with a pool of 164 items. These items were subjected to experts' opinion and reduced to 136. The scale was administered on a sample of 456 participants and the item analysis was carried out the having more than 0.35 and above value were retained for factor analysis. After initial factor analyses the scale was again administered on a sample of 550 participants. The principal component analyses were employed and 48 items were retained covering three factor i.e. Belief, Attitude and values. The measure demonstrated high internal consistency and good test-retest reliability as well as validity.

Keywords: *Religiosity, Belief System, Factor Analysis, Adolescents.*

Religious faith, beliefs, and activities are important aspects of the lives of adolescents. Although researchers have found a general age trend for religiousness to decline from childhood through adolescence (Benson, Donahue, & Erickson, 1989; King, Elder, & Whitbeck, 1997),

Religious practices differ by culture, political boundary, boundary, local community, and individual, some form of religion is influential, even central, in the lives of many people across the globe. Religion is an important context for development because it provides a means of socialization in areas such as moral behavior and offers emotional support to individuals from the cradle to the grave. Given cognitive advances during adolescence including increased abilities to think abstractly and understand symbolism, it is important to study the impact of religion during this stage.

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Religion plays an important role for adolescents elsewhere in the world. Lippman and Keith (2006) reported that 82% of 20,000 teens and young adults from 41 countries indicated a belief in God. Additionally, there is much support for the protective role of religion in relation to various aspects of youth wellbeing including both social and psychological outcomes. Despite the consistency of these findings, less is known about the role of broader contextual features within which youth religiosity is situated. Cultural-religious factors such as religious affiliation and nationality might directly impact youth functioning (and therefore potentially reduce the impact attributed to religiosity), or they might alter the relationship between religiosity and youth functioning.

Concept of Religion

Religion has been delineated in many and various ways according to a number of scholars. However, it seems that there is no generally accepted definition of religion taken into account the nature of the discipline, diversity of religions, diversity of religious experiences, and diversity of religious origins, among others. Religion like music is a hard concept to define. However, many theologians, philosophers, psychologists, sociologists and scholars in general have defined religion from varying viewpoints and conceptualizations. This implies that religion has been defined in many ways and in a number of cases in line with a particular school of thought or discipline. For instance, scientific approaches to religion have often shifted between delineating religion with reference to its social or psychological functions and its belief contents (see, Mayrl, D. (2011).

Etymological speaking, religion is derived from the Latin word ‘religare’ which means to “to bind back” or “to rebind”. This implies that etymologically speaking religion entails a process of reconnecting by worship a missing or broken intimacy between God and worshippers. Alternative less known and used etymological origin of religion is the Latin word ‘relegere’ denoting “to re-read” (see, Hunsberger, B., Pratt, M., & Pancer, S.M. (2001). Boffetti (2004) defined religion as “that which we designate as our symbol of ultimate concern”. This suggests that religion relates to symbols with ultimate spiritual relevance and influence in worshippers way of life. Pecorino (2000) notes that a robust definition of religion needs to meet a number of requirements such as: involvement of the totality of life; is open to all kinds of people; deals with issues naturally in widely different activities; deals with issues in widely different notions and beliefs; exists and is practiced in both private and social milieus; is open to various opinions as to the veracity or otherwise its beliefs; and has repercussions perceived to be either harmful or beneficial to persons and groups.

In view of the above requirements, religion is “the most intensive and comprehensive method of valuing that is experienced by humankind”. This definition is both ideal and actual. It does empower us to comprehend and explain religious phenomena in a better way. It also empowers us to comprehend the difference between religious experience and other kinds of human

experiences. It also helps us to understand the relationships between religion and other forms of life such as language, among others Anih, S. (1992).

Research on the associations of religiousness with adolescent outcomes has largely overlooked a fundamental fact about adolescents and their religious beliefs: When adolescents become more (or less) religious, these personal changes often create discrepancies between the adolescents' and their parents' endorsement of beliefs and engagement in personally meaningful practices. These discrepancies may be equally or perhaps even more potent in predicting adolescent maladjustment than are parents' and adolescents' mean levels of religiousness. That is, discrepancies in religiousness may negatively affect relationship quality between adolescents and their parents, which in turn is associated with adolescent maladjustment. Indeed, research suggests that, among young adults, when a mother and her child place similar degrees of importance on religion, they report higher quality affective relations (Pearce & Axinn, 1998). Conversely, adolescents who ascribe less importance to religion than their parents report less affection toward parents compared with adolescents who ascribe the same importance to religion as their parents (Stokes & Regnerus, 2009).

Relevant to religion, some studies mention that religion can offer an alternative way of satisfaction and worth to believers and motivate them with spiritual ideas and principles, instead of preoccupation with body image, or other external sources of satisfaction (Avants, Warburton, & Margolin, 2001). Believing in a supernatural being who loves unconditionally may pave the way as a core of self-esteem (Sherkat & Ellison, 1999).

Changes in religious development and beliefs may be particularly salient during adolescence. Fowler & Dell, (2010) describes adolescence as a stage of "synthetic conventional" faith in which advances in cognitive functioning (Brelsford, G. M., & Mahoney, A. (2008).) and interpersonal perspective taking enable youth to develop more sophisticated understanding of a personal God. Together with the most important people in their lives, including family members (Mahoney, 2013), youth form strongly felt beliefs and representations of God imbued with personal qualities such as love, acceptance, and support, or in the case of unresolved deficits in early childhood, representations which may include narcissism, betrayal, or shame King, P. E. (2003).

Studies suggest that religious involvement among adults is associated with lower mortality rates, less frequent unhealthy behavior (eg., drug and alcohol use and abuse), and a lower prevalence of anxiety, depression and suicide, among other health outcomes (e.g., Johnson et al., 2002; Koenig et al., 2001; Lee and Newberg, 2005; McCullough and Smith, 2003; Regnerus, 2003).

In connection with the importance of religious studies and beliefs, Benjamin Rush (1805), believes that the role of religion in people's psychological health is the same as the relationship of oxygen to breathing. Therefore, religion, the permanent relationship with God and belief in His omnipresence, has a significant impact on mental health and the treatment of mental illness (Berger, P. (1974).

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A relatively consistent proportion of Adolescents reported that religion played a very important role in their lives Wallace, J. M., Jr., Forman, T. A., Caldwell, C. H., & Willis, D. S. (2003). However far more youth report that religion is just “important” in their lives: Cnaan, Gelles, and Sinha (2004) found in a national representative sample of over 2,000 teens (aged 11 to 18) that the majority of youth reported that religion is important in their lives (83.7%). Bergan A., & McConatha, J. T. (2000) reported that over half of youth (56%) feel that their religious faith is very important in their life, while two-thirds of the teens surveyed describe themselves as “religious” (64%).

RATIONALE OF THE STUDY

The above reviews imply the role of the Religiosity towards well being among adolescents. The exploration of the various attributes gives a drive to measure the Religious belief System on the basis of the above attributes. Based on the above reviews, the following domains are concise to contribute for Religious belief System. *Belief* (one of systems of faith based on the existence of a particular god and the activities of worship, an interest /influence very important in life), *Attitude* (complex mental orientation involving beliefs and feelings and values and dispositions to act in certain ways.), *Values* (beliefs about how one ought or ought not to behave, or about some end state of existence worth or not worth attaining.).

The reviews of literature in analyzing the present works available in the area gives a handful of measures are prevalent in the west. However works of Religiosity in relation to health in a growing economy like India especially where the cultural differences are far unlike the west is at scarce. Hence a lot need to be explored on the third world populations where health in itself is at primordial levels. The present work attempts to develop a comprehensive Belief System Awareness Scale.

The aim of the study is to develop a scale of Religious belief System among Adolescents. The goal was to develop a brief measure, with good psychometric properties including internal reliability, Test- Retest Reliability and validity. Hence, the present study describes the steps/ procedure for the development of the Religious belief System for Adolescents (16-19 Years).

Scale construction

The development of scale proceeded in three phases: a development phase for the selection of items, a refinement phase, and a final psychometric evaluation phase. The study carried out to develop a scale for the Adolescents on Religious Belief System in the Indian sample.

Item Generation was initiated by the authors giving the core attributes of the measure to panel of psychologists. This led to the generation of 164 items. Those items were primarily screened for their face validity and content validity by a panel of seven experts.

Peer review discussions were carried out to see for the repetition of items, their intended meaning, linguistic appropriateness, culture freeness etc. After a thorough peer review discussion, **136** items out of 164 were retained in the preliminary form of the Religious Belief System scale. The items are then arranged in a numerical sequence with positive and negative statements placed in alternate to one another to avoid halo and horn effects. Thus 136 items were retained out of which 48 items were representing **Belief** (items 1-48), 46 items were representing **Attitude**, (items 49-94), 42 items were representing **Values** (items 95-136).

Editing was done for vocabulary appropriateness, connotative meaning, reframing of sentences in third person form was done as a final modulation of the scale before it has been administered to the participants. The scale was designed in likert form of scale ranging from strongly disagree (SD) to strongly agree (SA) with score of 1 to 5 for the positive statements where as 5 to 1 in case of negative statements.

Administration of the scale

The scale was administered on **452** participants in six sessions for the ease of admissibility. The purpose and the nature of the study was initially explained to the participants and due permission has been obtained before the administration of the scale to the participants. The data was scored as per the criteria of positive and negative statements. Later it was entered in the excel sheet and analyzed for the errors and missing values so as to tune it for the utility in a statistical software (SPSS) 21.

RESULTS

Test construction was carried out for development of the Religious belief system scale.

The means were analyzed and all items with extreme responses were deleted. Items were deleted. Items were also analyzed for their item total correlations and items with low coefficients were deleted. The retained items, Means, Standard Deviation, Correlated item total correlations are displayed in table 1.

Development and Validation of Religious Belief System Scale

Table 1. Mean standard deviation and Item total correlations of the retained Items.

Items	Mean	Std. Deviation	Item-total Correlation	Items	Mean	Std. Deviation	Item-total Correlation
5	4.00	1.04	0.46	44	3.76	1.08	0.39
6	4.03	1.08	0.46	45	4.15	1.01	0.53
7	4.11	1.03	0.50	46	3.69	1.06	0.44
9	3.81	1.00	0.51	48	3.96	0.99	0.54
12	3.97	0.97	0.51	49	3.60	1.11	0.46
14	3.99	1.00	0.49	51	4.03	0.93	0.29
15	3.81	1.09	0.47	52	3.95	0.95	0.47
17	4.12	1.03	0.52	53	4.03	1.08	0.46
18	3.62	1.09	0.50	54	3.67	1.09	0.41
20	3.58	1.04	0.39	55	3.58	1.04	0.31
21	3.67	1.21	0.32	56	3.95	1.04	0.29
22	3.68	1.14	0.40	58	3.79	1.03	0.41
25	3.93	1.12	0.57	59	4.03	0.98	0.44
27	3.95	1.04	0.29	61	4.05	1.04	0.57
28	3.56	1.09	0.36	64	4.13	0.97	0.43
29	3.81	1.02	0.46	65	3.93	1.01	0.44
31	3.40	1.05	0.40	66	3.41	1.04	0.40
32	3.51	1.01	0.37	68	3.88	1.14	0.49
34	3.78	1.05	0.41	69	3.67	1.21	0.32
37	3.72	1.11	0.38	72	3.73	1.09	0.52
38	3.88	1.14	0.49	74	4.18	0.99	0.53
40	3.59	1.15	0.47	76	3.99	1.01	0.42
41	3.91	1.05	0.50	79	3.56	1.09	0.36
42	3.79	1.02	0.43	80	3.48	1.33	0.28

The data was subjected to principal component analysis. The details are shown in table 2.

Table 2: Factor Analysis of Religious Belief System scale (Version I)

Factor Nos.	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.156	7.995	7.995	6.156	7.995	16.995
2	3.128	5.361	13.356	4.128	5.361	21.356
3	2.784	3.616	16.972	2.784	3.616	26.972
4	1.322	3.016	19.988	2.322	3.016	30.988
5	1.120	2.753	22.741	2.120	2.753	31.741
6	1.050	2.662	25.403	2.050	2.662	34.403
7	1.946	2.527	27.930	1.946	2.527	36.930
8	1.846	2.398	30.328	1.846	2.398	38.328

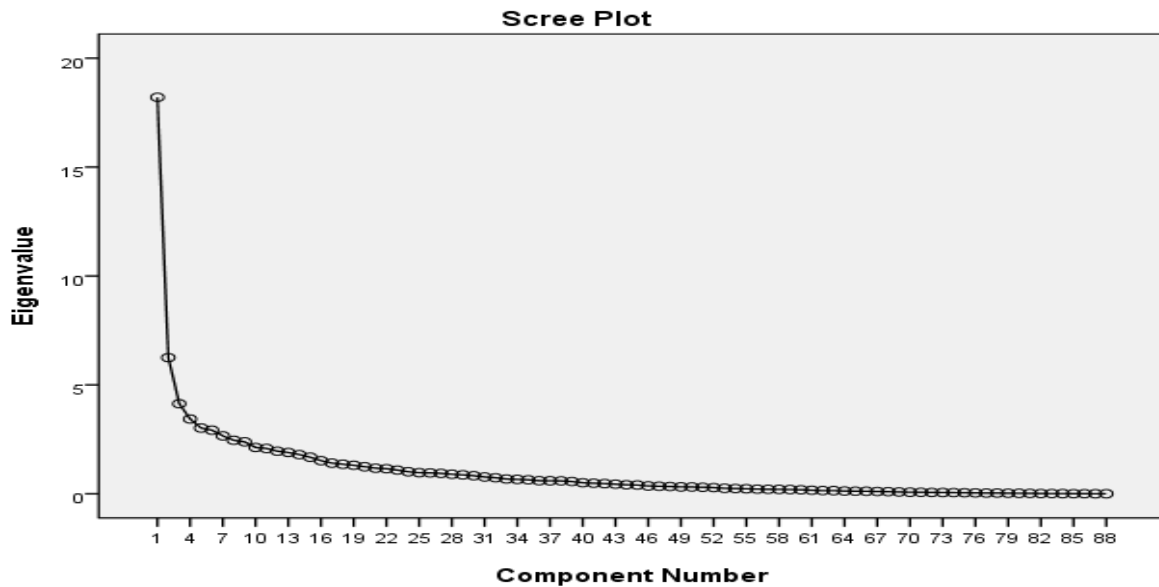
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9	1.822	2.366	32.694	1.822	2.366	40.694
10	1.748	2.270	34.965	1.748	2.270	42.965
11	1.728	2.244	37.209	1.728	2.244	44.209
12	1.671	2.170	39.379	1.671	2.170	45.379
13	1.619	2.103	41.482	1.619	2.103	47.482
14	1.563	2.029	43.511	1.563	2.029	49.511
15	1.514	1.966	45.477	1.514	1.966	51.477
16	1.454	1.888	47.365	1.454	1.888	53.365
17	1.395	1.812	49.177	1.395	1.812	54.177
18	1.350	1.753	50.931	1.350	1.753	56.931
19	1.330	1.728	52.658	1.330	1.728	57.658
20	1.288	1.673	54.332	1.288	1.673	60.332
21	1.262	1.639	55.971	1.262	1.639	63.971
22	1.209	1.570	57.541	1.209	1.570	65.541
23	1.191	1.546	59.087	1.191	1.546	68.087
24	1.128	1.464	60.551	1.128	1.464	70.551
25	1.112	1.444	61.996	1.112	1.444	72.996
26	1.099	1.428	63.423	1.099	1.428	74.423

NB: 1. Extraction Method: Principal Component Analysis

The **table 2** shows the total variance in the data is explained by 26 components extracted which explain **74 %** of variance in the variable of Religiosity. The rotations failed to converge in 25 iterations (convergence = 2.178) in the data and was found less appropriate for 26 factors and hence with the focus on consolidation a scree plot was tried out to predict the best possible number of factors which can explain some acceptable level of variance. Following the above procedure the components has been fixed to a number of three based on the scree plot shown below in *figure 1* and the component analysis was attempted again. The communalities and the loading for each item on the Religious belief System Scale have also been analyzed before finally attempting for the component analysis.

Figure 1: Scree plot



Once the factors have been restricted to three the variance explained was 26.972% of the Religiosity as shown in Table 2.

Table 3: Variance Explained - Religious Belief System Scale (Version I)

Item	Initial Eigen values		Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings			
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.156	7.995	7.995	6.156	7.995	16.995	4.480	5.818	15.818
2	3.128	5.361	13.356	4.128	5.361	21.356	3.626	4.708	20.526
3	2.784	2.753	22.741	2.120	2.753	26.972	2.623	3.407	26.972

Extraction Method: Principal Component Analysis.

Then a rotated component matrix was employed with varimax rotation to see the individual items' contribution for the variance and also to which factor the items consolidate to, with the mode of automated deletion of loadings of items less than 0.40 the factors converged nine rotations. The factor loadings were shown in table 3.

Table 4: Rotated Component Matrix and evolution of Factors – Religious Belief System Scale

Factor I		Factor II		Factor III	
Item No	Loading	Item No	Loading	Item No	Loading
45	.725	31	.583	51	.498
25	.710	21	.571	79	.485
38	.658	37	.558	68	.474
17	.636	15	.539	69	.469
28	.621	44	.530	42	.466
9	.611	52	.524	74	.464
27	.571	40	.516	66	.445
12	.546	20	.495	72	.439
5	.512	14	.471	65	.435
46	.492	34	.464	80	.427
22	.476	7	.441	55	.421
6	.455	58	.449	41	.412
54	.442	64	.441	61	.409
18	.429	32	.424	49	.406
48	.426	56	.411	53	.402
59	.424				
41	.418				
29	.410				

NB: 1. Extraction Method: Principal Component Analysis. 2. Rotation Method: Varimax with Kaiser Normalization. Rotations converged in 8 iterations. 4. Negative loadings indicate the inverse relationship with the measured variable. 4. Items with loadings of less than **0.40** were not shown in the table.

Deletion of the items

After the principal component analyses it was felt that there is a need to weed out certain items based on the loadings with the assumption that the retention of adequately loaded items might give a fair percentage of explaining variance of Religious Belief System scale. 40 items with loadings of less than 0.40 in all the three factors were decided to be deleted from the scale. Hence the items, where the loadings are below the requisite level are excluded from the scale. The identified factors after the component analysis are as follows. Factor - I (18 items), Factor - II (15 items), Factor - III (15 items). After factor analysis and exclusion of certain items (which

have not loaded sufficiently in any of the factors) rest 48 items were retained. At this juncture 48 items have been retained for measuring the Belief System Scale.

Naming of the factors

The final version of the scale had 48 items. The factors so arrived at are later named on the basis of the representation of the items. They are named as follows.

- Factor I is constituted by 18 items (Belief)
- Factor II is constituted by 15 items (Attitude)
- Factor III is constituted by 15 items (Values)

Reliability and Validity of the Religious Belief System Scale

Internal consistency analyses were conducted using Cronbach's alpha coefficient to obtain reliability estimates. All the factors (Belief, Attituded and Values shows strong internal consistency estimates ($\alpha = .92$ for *Belief*, $\alpha = .86$ for *Attitude*, $\alpha = .82$ for *Values*). Test-retest reliability was conducted by correlating scores obtained at the two administrations for each factor with a time gap of two weeks. Scores were calculated using means due to differences in the number of items for each scale. Test-retest reliability was strong for the factors and ($r = .71$ for *Belief*, $r = .84$ for *Attitudes*, $r = .85$ for *Values*; all p 's $< .001$). A correlation matrix is presented in Table 4.

Religious Belief System Scale has been validated with its equivalent form of all three factors i.e Religious Belief (Baneerjee 1962), Religious Attitude (Rajmanickam 1988) and Religious Values (Sherry and Verma, 2006). The Pearson's correlations for all three factors with the scale are very satisfactory. ($r = 0.82$ for *Belief*, $r = 0.74$ for *Attitudes*, $r = 0.72$ for *Values* at the 0.05 significance level).

DISCUSSION

The purpose of the current study was to develop a multidimensional measure of Religious Belief System using a sample of Adolescents. Religion in adolescents' lives, a growing body of research has considered associations between young peoples' religiosity and development (Bartkowski, Xu, & Levin, 2008).

Changes in religious development and beliefs may be particularly salient during adolescence. Dew, R.E., Daniel, S.S., Armstrong, T.A., Goldston, D.B., Triplett, M.F., & Koenig, H.G. (2008). describes adolescence as a stage of "synthetic conventional" faith in which advances in cognitive functioning and interpersonal perspective taking enable youth to develop more sophisticated understanding of a personal God. Together with the most important people in their lives, including family members (Chatters, L.M. (2000) youth form strongly felt beliefs and representations of God imbued with personal qualities such as love, acceptance, and support, or in the case of unresolved deficits in early childhood, representations which may include narcissism, betrayal, or shame (Knox, P. L. & Marston, S. A. (2003). In this study, religiosity

Development and Validation of Religious Belief System Scale

was defined as one's Beliefs and practices related to a religious affiliation or to God. To understand if individuals recognize that their beliefs were part of their own belief system, it was important to determine if people gave thought to and were aware of their beliefs, attitudes and values. This scale includes items that convey a close feeling with God or one's beliefs giving meaning to life, which also likely elicit feelings of comfort and purpose.

The aim of the study was to identify underlying dimensions in the data. Factor analysis results suggested a three-factor structure was most appropriate. Factor I, labeled *Belief* consists of items that assess the use of religious beliefs. The majority of items refer Belief in monotheistic, polytheistic or atheistic views. Since the beginning of recorded societies, most people have believed in a supreme being (Bowker, 2002). The Religious belief systems awareness survey identify if the subjects believed in one, more than one or no God (s). Another Items of Belief Factor is based on Thought of religions humanly or divinely created. In this the items are based on whether religions are divinely or humanly created that spoke of the population's discrepancies in their awareness of belief systems.

Factor II, labeled *Attitude*, consists of items that assess the religious attitudes, and consists of items related to "Thought in one belief system better than others" and also "Thought in one religion ensuring a better life over another".

Factor III, labeled *Values* consists of items that assess the use of religious Values. In this Factor Items are based on how one ought or ought not to behave, or about some end state of existence worth or not worth attaining. So, in this domain items are based on various relationship practices and also thought in subjects' belief system as best for everyone.

The second aim of the study involved establishing reliability and readability estimates for the measure. Reliability analyses indicated that both factors and the composite showed strong internal consistency. The composite score, therefore, may be used as a general index of religiosity, may be used to assess participation in specific religious belief, Values and activities. Test-retest reliability for the factors and composite was also good. It is expected that Religious Belief System Scale is fairly stable, especially over a relatively short period of time. The Religious Belief System Scale factor demonstrated high Validity. Finally, the readability analysis suggested that the measure is appropriate for Adolescents.

CONCLUSION

The Religious Belief System scale instigates lots of deliberations and criticisms for its betterment. The views, opinions and criticism on this work will be welcomed with goodwill interest to refine the Scale. This will ultimately serve the mankind with the overall desire for religious life, being an important guiding principle for healthy and positive living. It has been concluded through this study that people are aware of their own belief systems. This was determined by the fact that the majority of respondents did not answer "don't know" to the majority of questions. It has also been concluded that although people are aware of their own beliefs, they may not see the equal validity in others' belief systems. Finally, it was concluded

that religions familiar to the respondents are stated to be ensure better lives for others where as religions unfamiliar to respondents are not stated to ensure better lives for others.

LIMITATIONS

Despite the strengths of the results, this study has a number of limitations. First, although the measure was developed from various religions, the participating sample was predominantly from Hindu and Muslim background. This was due to the hesitation and refusal of many other religious groups to participate in data collection, as well as limited availability of groups of youth from diverse religions. In addition, the sample was predominantly made up of youth, which may affect the generalizability of the results.

DIRECTIONS FOR FUTURE RESEARCH

- The study necessitates further research work to establish norms on various age groups and cross verification on different ethnicity.
- Involve a larger population of varied religions. Tighten the sample population by distributing study to groups that knowingly practice the various faiths. Research could also be distributed where subjects knowingly gather to practice faiths that influence their belief systems.
- Another important consideration for future studies is to administer the measures in such a way that participants are more motivated to fully consider each item on the questionnaires and it is less time consuming.
- Shorten the survey to a few questions with very specific objectives. Now that awareness has been established, further studies could include research of tolerance and/or acceptance of others' equally valid belief systems.

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APPENDIX

Religious Belief System Scale

On the following pages you will find a series of statements related to awareness of your belief. Please read each statement and decide how much you agree or disagree with that statement. Read each item carefully and mark tick (v) in the appropriate. Please respond to all statements.

SD= Strongly Disagree

D= Disagree

N =Neutral (Neither agree nor disagree)

A= Agree

SA= strongly agree

S.no.	Items	SD	D	N	A	SA
1	God is present everywhere and wants us to worship.					
2	Praying to god before exams helps one to perform well.					
3	Faith in God hasn't changed my life					
4	My religious beliefs are pretty much same today as they were five years ago.					
5	When something bad happens, I always blame on God					
6	It is important to be a good person and practice a religion by heart.					
7	I believe in many religions					
8	I do not believe there is any way to find out god					
9	I do not believe in existence of god.					
10	Faith in god makes an individual more meaningful in life.					
11	I don't believe in miracles					
12	Deep faith in god helps us to overcome all the crises in life					
13	Without god my life would be meaningless					
14	I believe that prayer is like one to one communication with god					
15	Students who have faith in god are well mannered and courteous					

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S.no.	Items	SD	D	N	A	SA
16	Presence of God in my life is not very important					
17	I think it is best if people don't believe in any religion					
18	Religion is more of a burden than a support while coping up with difficulties					
19	All religions are equally good and no religion is superior to one other					
20	Every person has freedom to choose the religion of his/her choice.					
21	I don't believe in any religion, there are much more important things in my life.					
22	I considered myself superior to those who do not believe in god					
23	I do not practice religion but view myself spiritual.					
24	I don't like following many rituals of my own religion					
25	I respect all the religions but don't want to convert myself to other religions					
26	I think my religion is better than others					
27	My religion is best and must be followed by all human beings					
28	I consider myself a religious person rather than a spiritual one					
29	Religious practices never help me in resolving my problems.					
30	I stand up for my religious beliefs when they are questioned by others					
31	Being spiritual is better than being religious					
32	I have my own way of connecting to god, I do not believe in going to religious places like Temple, church etc					
33	My attitude towards religious people is negative					
34	Because of my religious beliefs I forgive myself for things I have done wrong.					
35	Because of my religious or spiritual beliefs I forgive those who had hurt me.					
36	I never follow and obey God's will.					
37	I often practice my spiritual beliefs by reading books on faith					

S.no.	Items	SD	D	N	A	SA
38	I don't like to visit various kinds of religious places					
39	I never practice my spiritual values through connecting with god.					
40	I volunteer to help others based on my religious values					
41	I hate to perform my duties as per my religious faith.					
42	God punishes those who commits suicide and send them to hell.					
43	Everyone should obey all the rituals of their religion.					

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44	I feel God punishes me for my sins.					
45	I never confess my sins to god					
46	I always take care of personal hygiene before praying to god					
47	In my opinion, person having more than one spouse at a time is a not sin					
48	If someone threatens me or tries to harm me without any reason I speak out and hurt them.					

Effect of Relaxation Techniques on Management of Stress among Housewives

Moon Banerjee^{1*}

ABSTRACT

The purpose of the present study is to assess the Effectiveness of Relaxation Techniques among Housewives. Based on the purposive sampling technique 30 housewives were selected from Agartala town. A proper rapport was established with the housewives and socio-demographic profile was noted. Kindler Stress Assessment Inventory was presented to the housewives. Then the steps of Relaxation techniques were administered to the housewives and they were instructed to practice daily for 4 weeks. After the completion of 4 weeks, the Somatic symptoms, Psychological symptoms and Stress resilience were again assessed with the help of Kindler Stress Assessment Inventory. Results indicated that there is reduction in the level of stress among the housewives after applying Relaxation techniques.

Keywords: *Stress; Relaxation; Housewives.*

Various definitions have been offered for the concept of stress. Stress is defined as “the nonspecific result of any demand upon the body, be the effect mental or somatic”. Several studies, in various fields and in clinical setting, have shown deleterious effects of stress on healthy people and on various groups of population including house wives. “A housewife is a woman whose main occupation is running or managing her family, home, caring for and educating her children, cooking and storing food, buying goods, the family needs in day-to-day life, cleaning and maintaining the home, making clothes for the family, and who is generally not employed outside the home”.

Stress, for many years, has been recognized as a source of physical and mental health impairment among housewives. There are evidences in the literature that stress may reduce the effectiveness of human immune system and increase the risk of infections and diseases among housewives. Housewives, especially those with young children at home, are significantly more anxious and stressed because of various psychological and social factor than their counterparts.

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Effect of Relaxation Techniques on Management of Stress among Housewives

Psychological well-being of house wives is often enhanced by the most stressful experiences of circumstances concerning their family roles.

Relaxation technique is an effective way among housewives which can help them to manage their level of stress in a variety of situation. Relaxation is not just about peace of mind or enjoying a hobby. Relaxation is a process that decreases the effects of stress on mind and body. Relaxation techniques can help to cope with everyday stress. It is also effective in reducing various stresses related health problems. Several studies have assessed the effects of relaxation on stress in patients and housewives. Lyne et al. mentioned progressive muscle relaxation as an effective technique in reducing cancer distress. Ghafari et al. indicated progressive muscle relaxation as an essential tool in reducing stress. Conversely, studies of Edelman et al., Gaston-Johansson et al., and Bordeleau et al. considered relaxation as an effective method in reducing pain and distress among housewives. Likewise, Sloman and Molassiotis et al. reported relaxation to be effective in anxiety and stress reduction among housewives at different situation.

Relaxation techniques are often employed as one of the element of a wider stress management program among housewives that can decrease muscle tension, lower the blood pressure and slow heart and breathe rates with other health benefits. The present study aims to determine the effectiveness of relaxation training programme as any method, process, procedure, or activity that will help a housewife to relax, to attain a state of increased calmness. This will reduce the incidence of stress among housewives in order to maintain a healthy life style.

METHODS

Objectives of the Study:

- Determine the socio-economic profile of the housewives.
- To assess the level of stress among the housewives in selected areas.
- To assess the level of stress after administering the relaxation techniques (Benson's Relaxation Response, Breathing Rate Reduction Technique, OMKAR Meditation).
- To find out the difference between the level of stress among housewives after administering the relaxation techniques.
- To manage the level of stress among housewives

Hypotheses:

- After administering relaxation techniques the somatic symptoms of stress among housewives will be decreased.
- After administering relaxation techniques the psychological symptoms of stress among housewives will be decreased.
- After administering relaxation techniques the stress resilience among housewives will be increased.

Operational Definitions:-

- **EFFECTIVENESS:** Effectiveness means the relaxation techniques how well these are useful to reduce the level of stress among housewives.

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- **RELAXATION TECHNIQUE:** Relaxation techniques are a great way to help with stress management. Relaxation isn't just about peace of mind or enjoying a hobby. Relaxation is a process that decreases the effects of stress on our mind and body. Relaxation techniques can help us to cope with everyday stress and stress related to various health problems, such as cancer and pain.
- **STRESS:** If any internal or external conditions will affect the balance or equilibrium of a woman it results in inability to cope with the demands of her day to day life.
- **HOUSEWIVES:** A women who manages a household works while her husband earns the family income.

Assumptions:

- The housewives are not aware about their stress level.
- The housewives have inadequate knowledge regarding the relaxation techniques.
- The housewives may not follow the relaxation technique in their day to day life.
- Initiating them to follow the relaxation techniques will help housewives to relieve from stress.

Method Of Data Collection:

Research Design:

One group pre-test and post-test Design is used to assess the level of stress among housewives.

O1 X O2

Here, O1= Pre intervention assessment, X= Treatment (Relaxation techniques), O2= Post intervention assessment.

Research Variables:

- Demographic Variables: Age, qualification, economic status, area of living, type of family, number of children.
- Study Variables:
 - a) **Independent Variables:**
 - Knowledge of Benson Relaxation Response in reducing stress.
 - Knowledge of Breathing Rate Reduction Technique in reducing stress.
 - Knowledge of OMKAR Meditation in reducing stress.
 - b) **Dependent Variables: Level of stress among housewives.**
- Sample: The study was carried out among 30 housewives, who were selected purposively and they were matched in terms of age & education. Most of them belonged to middle socio-economic status and having children. All the housewives belong from urban background.

Criteria for sample selection:

INCLUSION CRITERIA:

1. The housewives who can read and write the Bengali or English.
2. The housewives who are present at the time of data collection.

EXCLUSION CRITERIA:

1. The study excludes the housewives who are not co-operate
2. The housewives who are physically and mentally ill.

Sampling Technique: Purposive Sampling

Tools for Data Collection:

Kindler's Stress Assessment Inventory developed by Kindler was used to assess the level of stress of the study subject. It is a 4 point rating scale. This inventory was divided into three sub types – somatic symptoms, psychological symptoms & stress resilience. In total there are 50 items in the inventory. In the present inventory high score in somatic & psychological symptoms indicate high level of stress; and high score in resilience indicate high stress coping skill.

Intervention Used:

BENSON'S RELAXATION RESPONSE (BRR):

The term, 'Relaxation Response' was coined by Dr. Herbert Benson, professor, author, cardiologist, and founder of Harvard's Mind/Body Medical Institute. The response is defined as your personal ability to encourage your body to release chemicals and brain signals that make your muscles and organs slow down and increase blood flow to the brain. In his book *The Relaxation Response*, Dr. Benson describes the scientific benefits of relaxation, explaining that regular practice of the Relaxation Response can be an effective treatment for a wide range of stress-related disorders.

Steps involved in Benson's Relaxation Response:

- Sit comfortably.
- Keep the left hand palms straight facing up resting over Thais & the right hand palm straight facing up resting over Thais
- Keep head, neck, & spine erect, straight & relaxed.
- For the first 2 minutes observed what thoughts are passing through mind, do not get disturbed by the flow of thought and ignore the external noises.
- Then think of the name of the favourite God, mentally relaxed manner for 16 minutes.
- Think the name of God when breathe out and keep calm while breathing in.
- Finally remain silent for 2 minutes and open the eyes.

BREATHING RATE REDUCTION TECHNIQUE (BRRT):

Breathing is an automatic function of the body that is controlled by the respiratory centre of the brain. When we feel stressed, our breathing rate and pattern changes as part of the 'fight-or-flight response'. The primary role of breathing is to absorb oxygen and to expel carbon dioxide through the movement of the lungs. When a person is under stress, their breathing pattern changes. Typically, an anxious person takes small, shallow breaths, using their shoulders rather than their diaphragm to move air in and out of their lungs. This style of breathing disrupts the balance of gases in the body.

Steps involved in Breathing Rate Technique:

- At first the subject has to mentally count 1 while exhaling & count 2 while inhaling. This is to be continued for a period of 1 minute, ultimately the total no. is to be recorded.
- After each trial a gap of 1 minute rest is required.
- Continue the same procedure with a slight difference of trying to gradually prolong the duration of exhalation & inhalation within the comfort level.
- Like this 20 trials have to be done per day.

OMKAR MEDITATION:

This technique has been described by Acharya Rajneesh (Osho, 1992). Om meditation is another name for mantra or transcendental meditation. Om is a word known as a mantra and a mantra is what we quietly focus on during Om meditation. Om (pronounced AUM) is one of many mantras which we can use. A mantra is a syllable or set of syllables (sound vibrations) which help clear the mind.

Steps involved in OMKAR Meditation:

- The client was asked to sit on a stool in an upright position or sit in Ardha Padmasana, half-lotus position, on the floor (over a mat or a bed sheet).
- Then the sound “OM” was repeated aloud, extending “O” for half of the time and “M” for the later half.
- After completion of “OM” sound the client inhaled the air through the nostrils. And this cycle of chanting “OM” & inhaling the air, it was practiced for half an hour.
- This session was followed by fifteen minutes rest.

Procedure:

At first the socio-demographic perform and stress questionnaire were arranged. 30 housewives were selected for data collection. A proper rapport was established with the housewives. After that socio-demographic perform and kindler stress assessment inventory were presented to the subject. In case of kindler stress assessment inventory the subject was instructed to select 1 out of 4 options according to her feelings. For data collection self administered method was used. Then the steps of intervention techniques were administered to the housewives and they were instructed to practice daily for 4 weeks. After the completion of 4 weeks of intervention, the Somatic symptoms, psychological symptoms and stress resilience are again assessed with the help of Kindler Stress Assessment Inventory. The obtained scores were analysed with the help of appropriate scoring key and necessary calculations were done to compute the before and after intervention stress level.

DURATION: 4-6 weeks

Data Analysis:

After collecting the response from the housewives, at first all data sheets were checked thoroughly to find out any gaps or discrepancies in the response sheets. For data analysis,

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descriptive statistics i.e., mean, S.D was used and for the Hypothesis inferential statistics i.e. t test was employed.

RESULT AND DISCUSSION:

TABLE-1, Showing the percentage of socio-economic profile of housewives

Parameters	Characteristics	Mode Of Response	
		Frequency	Percentage
Age	*30-35	5	16.67%
	*36-40	12	40%
	*41-45	9	30%
	*46-50	4	13.33%
Education	* Below Graduate	19	63.33%
	* Graduate	11	36.67%
Family Environment	* Peaceful	21	70%
	* Not so Peaceful	9	30%
No. of Children	*No Children	1	3.33%
	* 1-2	27	90%
	* 3-5	2	6.67%
Type of family	* Nuclear	9	30%
	* Joint	21	70%
Monthly Income	*Below 20000	4	13.33%
	* 20001-25000	19	63.33%
	* 25001-30000	3	10%
	* 30001-35000	3	10%
	* 35001-40000	1	3.33%
Area of living	*Urban	30	100%
	*Rural	0	0%

TABLE-2, Showing the mean, S.D, and t value of before & after somatic symptoms of stress among housewives

INTERVENTION	NUMBER	MEAN	S.D	t-VALUE	LEVEL OF SIGNIFICANCE
Before intervention	30	42.03	3.47	16.39	Significant
After intervention	30	30.06	2.03		

TABLE-3, Graphical Representation of data showing the difference between Pre-Intervention and Post-Intervention Somatic symptoms of Stress

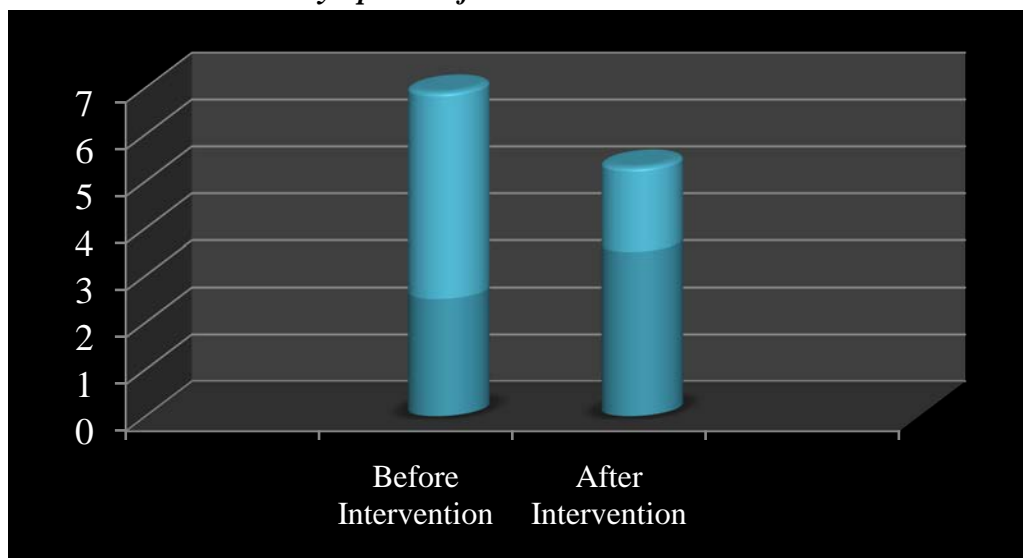
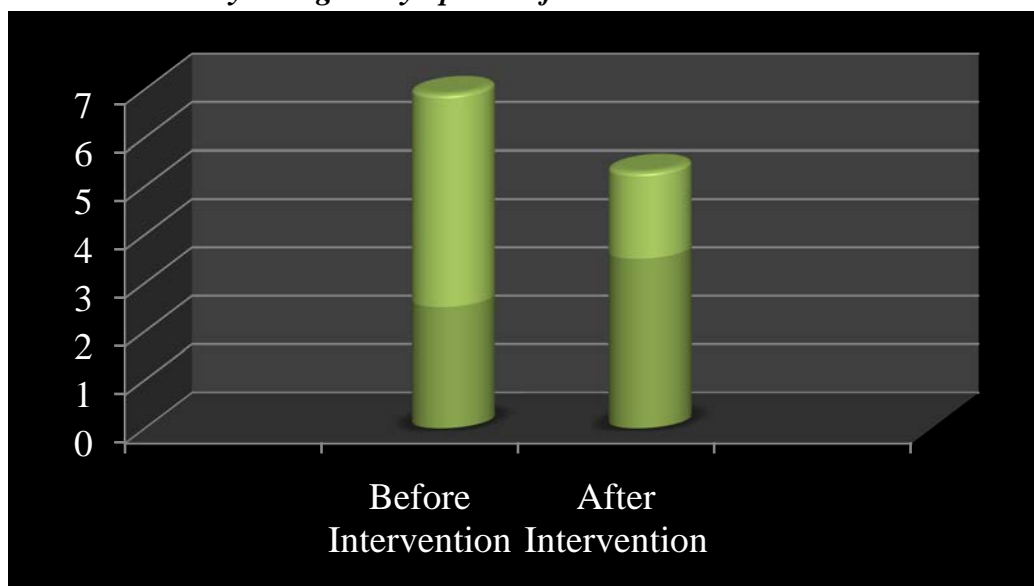


TABLE-4, Showing the mean, S.D and t value of before and after psychological symptoms of stress among housewives

INTERVENTION	NUMBER	MEAN	S.D	t-VALUE	LEVEL OF SIGNIFICANCE
Before intervention	30	41.3	3.18	15.57	Significant
After intervention	30	30.04	2.17		

TABLE-5, Graphical Representation of data showing the difference between Pre-Intervention and Post-Intervention Psychological symptoms of Stress

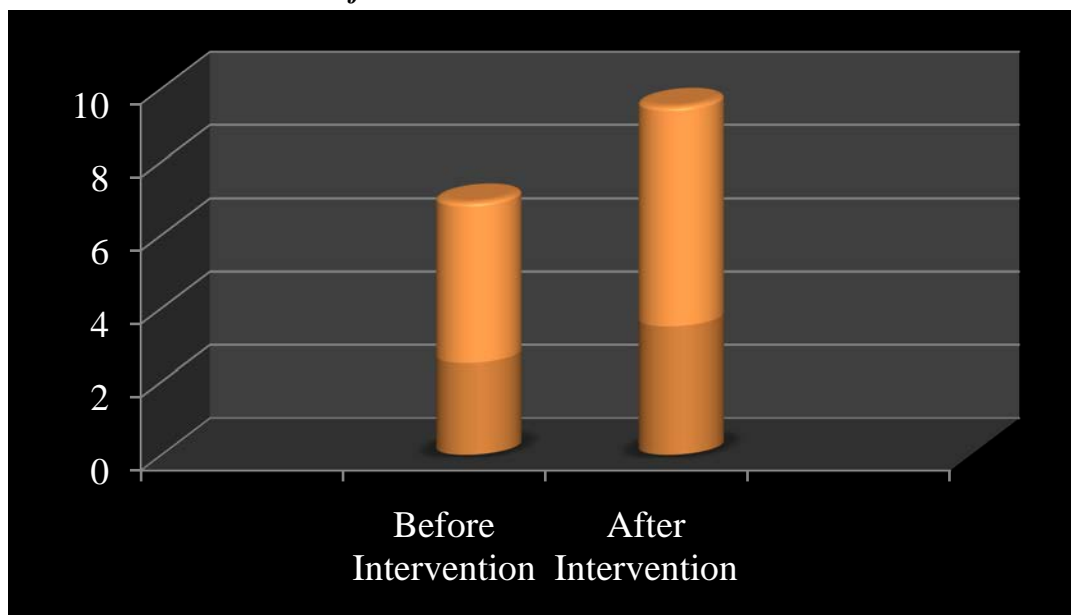


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TABLE-6, Showing the mean, S.D, and t value of before & after Resilience of stress among housewives

INTERVENTION	NUMBER	MEAN	S.D	t-VALUE	LEVEL OF SIGNIFICANCE
Before intervention	30	22.13	1.72	19.20	Significant
After intervention	30	34.8	3.22		

TABLE-7, Graphical Representation of data showing the difference between Pre-Intervention & Post-Intervention Resilience of Stress



FINDINGS OF THE STUDY:

- From the socio-economic profile of the housewives, it was found that the housewives belonged from the age group of 30-50. Among 30 housewives 63.33% were below graduate and 36.67% were graduate. All the housewives who were selected for the study belonged from urban area of Agartala.
- The socio-demographic profile also revealed that among 30 housewives, 70% lived in nuclear family and 30% lived in joint families. Among 30 housewives 70% reported that their family environment was peaceful and 30% reported that their family environment was not so peaceful. Most of the housewives were having children.
- It was found that most of the subjects belonged from middle socio- economic status. The monthly income of their family ranges from 15000-40000. This indicates that the housewives maintained a middle class lifestyle.
- The before intervention total score of somatic, psychological and resilience of stress for 30 Housewives are 1261, 1239 and 664. And after intervention the total score of somatic,

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psychological and resilience of stress for 30 Housewives are 902,912 and 1044 respectively.

- The before and after intervention mean score of somatic symptoms were 42.03 and 30.06 and S.D of before and after intervention somatic symptoms were 3.47 and 2.03. The t-value of before & after intervention Somatic symptom was 16.39.
- The mean score of before and after intervention psychological symptoms were 41.3 and 30.03 and the S.D of before and after intervention psychological symptoms were 3.18 and 2.17 respectively. The t-value of before and after intervention psychological symptom was 15.57.
- The mean score of before and after intervention stress resilience were 22.13 and 34.8. The S.D of before and after intervention stress resilience were 1.72 and 3.22 respectively. And the t-value of before & after intervention stress resilience was 19.20.
- The t-value of before & after intervention somatic, psychological and resilience were significant which indicates that there is a significant difference found between before and after intervention somatic, psychological and resilience of stress.

DISCUSSION:

The purpose of the present study was to manage the level of stress among housewives by applying appropriate suitable intervention techniques. Stress may be defined as the sum of physical and mental responses to an unacceptable disparity between real or imagined personal experience and personal expectations.

Stress problems are very common. The American psychological Association's (2007) stress in America's poll found that 1/3 of people in the United States report experiencing extreme levels of negative stress. In addition nearly 1 out of 5 people reported that they are experiencing high levels of negative stress, 15 or more days per month. Housewife is the most neglected occupation. Stress is a part of every body's life both in men and women. Though it is considered that women is the most common victims to stress. There are certain specific conditions that might lead to some special kind of stress in women, these conditions include pregnancy, menopause and familial strife. In modern day women are expected to juggle their tasks as a result of escalating expectations placed on their weak shoulders. They mould themselves to fit into various social customs like wives, mothers, sisters and daughters-in-law etc. Pearlin and Lieberman (1997) found that when stressful life events were relatively infrequent or minor, married and unmarried women had similar level of depression. Studies have been also conducted in Rajasthan, on Indian women regarding the marital adjustment and subjective well-being. In India educated housewives and working women revealed that marital adjustment and subjective well-being of the employed women were better than those of housewives. Women working outside their homes reported good general health, life satisfaction and self-esteem and lower scores on insecurity and anxiety. The demographic characteristic was age, education, area of living, monthly income, family type, number of children and family environment which influenced the various sources of stressors. The present study shows that most of the housewives

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belong from middle socio-economic status, they lived in urban areas, 70% belongs from nuclear family and 30% belongs to joint family and most of them are having children. They are stressed because they have to manage their urban lifestyle, the education of their children and other accessories within their monthly budget.

In the present study, intervention module is applied to manage the level of stress among housewives. Stress is linked to physical and mental health, as well as decreased willingness to take on new and creative endeavors. The practice of appropriate relaxation technique gives the tool and techniques, which helps to expand conscious awareness into the unconscious parts of the mind in order to become aware of the patterns and habits which lead to stress. Breathing relaxation has effective results on stress management. Breathing exercise and meditation was found to be useful in controlling asthma and other breathing disorders, high blood pressure, heart trouble, backache, spondylitis, chronic cold and cough and many other ailments among the housewives. The practice also improved the mental outlook of the women and makes her more positive, cheerful, optimistic and confident. By following this practice housewives can accomplish her work more energetically and effectively.

CONCLUSIONS:

Today there are many housewives who are involved in numerous daily life activities such as manage household work, cooking, involving themselves in their children's education, social activities etc. Women alleviating stress by altering their lifestyle through building greater stress tolerance, changing their pace of life, controlling distressful thoughts, acquiring problem solving skills, and seeking social support. It can be said that, Relaxation techniques are very important therapy in coping with stress. By applying these techniques in everyday life, housewives can manage their stress. The relaxation technique produces effective results in dealing with stress. The housewives can protect themselves from different stress which is related to physical and psychological disturbances. Their stress resilience capacity will increased by practicing these techniques daily.

IMPLICATION OF THE PRESENT STUDY:

The findings of the study were important from the point of view of excellence of housewives and their effectiveness and efficiency in dealing with stress. Stress affects the efficiency of the individual. So it is necessary to provide proper environment and support to maintain individual stress. Therefore, there is the need for effective management of the stressors by making use of different management strategies by providing effective relaxation techniques. The study has revealed a remarkable difference between before and after intervention level of stress among housewives. Intervention techniques help them to develop stress resilience strategies. It can be said, that the potentiality of coping strategies will have positive reinforcing effect on stress, which is an effective measures to manage stressors in day-to-day and resolve the state of stress by making the housewives to face and resolve the state of stress by making use of the management strategies consciously at appropriate time. The present study is useful to guide

housewives to manage their level of stress by creating awareness about the stressors and coping strategies for minimization of stress in their life as stress cannot be vanished from life.

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Growing Beyond Survival: Resilience, Hope and Meaning in Life

Nidhi^{1*}

ABSTRACT

Resilience is the ability to bounce back in the face of adversity. Some people become overwhelmed by life's challenges and tragedies, while some others seem to maintain their bearings in the face of adversity. Research has indicated that resilient people generally use effective coping strategies, have a firm understanding of reality, a deep and meaningful belief system, the ability to improvise and have a strong belief in the future. Hope includes the ability to motivate oneself and persist in the face of difficult situation while Meaning in life helps in positive coping and adaptation. The purpose of the present investigation is to study the relation between meaning in life, hope and resilience. A sample of 60 subjects (30 males and 30 females), the age range of 18-30 years were administered the Connor-Davidson Resilience Scale (CD-RISC), Adult Hope scale (Snyder) and Meaning in life Questionnaire (Steger, 2006). Suitable statistical technique to be used to study the relationship between the three variables.

Keywords: Resilience, Hope, Meaning in life, Adversity, Strategies.

Growing beyond survival is a self-management workbook, which teaches skills that empower survivors to take control of and de-escalate their most distressing trauma related symptoms. It teaches trauma survivors to recognize, contextualize, and understand distressing dissociative and posttraumatic reactions. It also creates a structure in which to learn and practice skills for self-regulation of the troublesome thoughts, feelings, and impulses related to traumatic experience. Growing beyond Survival integrates concrete techniques for regulating emotions into a systematic approach for enhancing self-awareness.

Resilience

Resilience is defined as an individual's ability to properly adapt to stress and adversity. Stress and adversity can come in the shape of family or relationship problems, health problems, or workplace and financial stressors, among others. Individuals demonstrate resilience when they can face difficult experiences and rise above them with ease. Resilience is not a rare ability; in reality, it is found in the average individual and it can be learned and developed by virtually

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anyone. Resilience should be considered a process, rather than a trait to be had. There is a common misconception that people who are resilient experience no negative emotions or thoughts and display optimism in all situations. Contrary to this misconception, the reality remains that resiliency is demonstrated within individuals who can effectively and relatively easily navigate their way around crises and utilize effective methods of coping. In other words, people who demonstrate resilience are people with positive emotionality; they are keen to effectively balance negative emotions with positive ones.

Resilience is composed of particular factors attributed to an individual. There are numerous factors, which cumulatively contribute to a person's resilience. The primary factor in resilience is having positive relationships inside or outside one's family. It is the single most critical means of handling both ordinary and extraordinary levels of stress. These positive relationships include traits such as mutual, reciprocal support and caring. Such relationships aid in bolstering a person's Resilience. Resilience is best understood as a process. It is often mistakenly assumed to be a trait of the individual, an idea more typically referred to as "resiliency. Most research now shows that resilience is the result of individuals being able to interact with their environments and the processes that either promote well-being or protect them against the overwhelming influence of risk factors. Dumont & Widom (Sep, 2014). Found that stressful life events and a supportive partner promoted resilience in young adulthood. Neighborhood advantage did not exert a direct effect on resilience, but moderated the relationship between household stability and resilience in adolescence and between cognitive ability and resilience in young adulthood. Wang & Walberg (2010) one factor found to contribute to resilience was the development of a significant relationship with a family member or adult member. More recently, the focus of resilience has been extended to the family unit. These processes can be individual coping strategies, or may be helped along by good families, schools, communities, and social policies that make resilience more likely to occur. In this sense "resilience" occurs when there are cumulative "protective factors". These factors are likely to play a more and more important role the greater the individual's exposure to cumulative "risk factors". When a person faces stress and adversity, especially of a repetitive nature, their ability to adapt is an important factor in whether they have a more positive or negative outcome. Resilient individuals are those who are considered to have positive developmental outcomes in light of their negative experiences, such as bullying. Sapouna & Wolke (2013) examined adolescents who illustrated resilience to bullying and found some interesting gendered differences, with higher behavioral resilience found among girls and higher emotional resilience found among boys. Despite these differences, they still implicated internal resources and negative emotionality in either encouraging or being negatively associated with resilience to bullying respectively and urged for the targeting of psychosocial skills as a form of intervention. Schneider et al. (2013) found that emotional perception was significant in facilitating lower negative emotionality during stress and Emotional Understanding facilitated resilience and has a positive correlation with positive affect. Fostering resilience in children requires family environments that are caring and stable, hold high expectations for children's behavior and encourage participation in the life of the family. Most

resilient children have a strong relationship with at least one adult, not always a parent and this relationship helps to diminish risk associated with family discord. Benard (2010) found that even though divorce produces stress, the availability of social support from family and community can reduce stress and yield positive outcomes. Any family that emphasizes the value of assigned chores, caring for brothers or sisters, and the contribution of part-time work in supporting the family helps to foster resilience.

There is significant research found in the literature on the relationship between positive emotions and resilience. Studies show that maintaining positive emotions whilst facing adversity promote flexibility in thinking and problem solving. Tugade & Fredrickson (2012) suggest that resilient people may use positive emotions strategically or intelligently to achieve their superior coping outcomes. Positive emotions serve an important function in their ability to help an individual recover from stressful experiences and encounters. That being said, maintaining a positive emotionality aids in counteracting the physiological effects of negative emotions. It also facilitates adaptive coping, builds enduring social resources, and increases personal well-being.

Meaning in Life

Human beings have a strong desire to understand themselves and the world around them, exhibiting cognitive and behavioral activity in support of such desires (Vohs, 2006; Higgins, 2000). People theoretically experience the presence of meaning when they comprehend themselves and the world, understand their unique fit in the world, and identify what they are trying to accomplish in their lives. Thus, people are thought to be motivated both to have and search for meaning in life. However, people vary in the degree to which they actively search for meaning. We define the search for meaning in life as the strength, intensity, and activity of people's desire and efforts to establish and/or augment their understanding of the meaning, significance, and purpose of their lives. In some theories, the search for meaning is seen to be a positive sign of mental health; in other theories, quite the opposite perspective is proposed. Frankl (2005; & Maddi, 2009) wrote that searching for meaning is "the primary motivational force in man [sic]". As such, the search for meaning should be a natural, healthy part of life, spurring people to seek out new opportunities and challenges, and fueling their desire to understand and organize their experiences. In contrast, other accounts regard search for meaning as symptomatic of dysfunction. For example, Baumeister (2009) and Klinger (2011) have suggested that the search for meaning only occurs among individuals whose needs have been frustrated. A third perspective recognizes both possibilities—that search for meaning has both healthy (i.e., life-affirming) and unhealthy (i.e., deficit-based) motivational roots (Reker, 2000). Finally, we propose a previously unexplored possibility that search for meaning might arise from different underlying motivations in different people and thus have different correlations depending on those motivations.

Hope

A typical dictionary definition of hope as "a desire and the confident expectation of its fulfillment" captures one of the fundamental reasons that humans enjoy sporting activities (Osterhoudt, 1978). Nevertheless, the role of hope has remained unexplored among personality researchers interested in individual differences in motivation, as well as by sport psychologists, largely because a theoretical model of hope and the associated measurement instruments have not been available. Previously, scholarly writings have defined hope as a one-dimensional construct involving an overall perception that goal can be met (French, 1952; Lewin, 1935; Stotland, 1969). Expanding on this one-dimensional model, Snyder and his colleagues (Snyder, 1994a, 1994b; Snyder, Harris, et al., 1991; Snyder, Sympton, et al., 1996) have suggested that Hope is defined as the perceived capability to derive pathways to desired goals, and motivate oneself via agency thinking to use those pathways. The adult and child hope scales that are derived from hope theory are described. Hope theory is compared to theories of learned optimism, optimism, self-efficacy, and self-esteem. Higher hope consistently is related to better outcomes in academics, athletics, physical health, psychological adjustment, and psychotherapy. Processes that lessen hope in children and adults are reviewed. Using the hope theory definition, no evidence is found for "false" hope. Goal-directed thinking is made up of two necessary components. First, there

Is a pathway thinking, which reflects the person's capacity to conceptualize one or more avenues by which to arrive at the desired goal? Second, there is agentic thinking, which taps thoughts aimed at initiating and sustaining movement along one's chosen pathways toward a desired goal. In turn, hope reflects the iterative sum of pathways and agentic thinking. More specifically, Snyder, Harris, et al. (1991, p. 571) defined hope as a "cognitive set that is based on a reciprocally derived sense of successful (a) agency (goal-directed determination) and (b) Pathways (planning of ways to meet goals)."

PROBLEM

1. To study the relation between resilience, hope & meaning in life among adults.
2. To study the predictive role of demographical variables (gender, rural/ urban, joint & nuclear family, health) on resilience, hope & meaning in life.

Hypothesis

1. There are significant relation between resilience, hope & meaning in life.
2. Demographical variables significant prediction of resilience, hope & meaning in life.

METHOD

Sample-

A sample of 60 subjects (30 males and 30 females) within the age range of 18 -30years from Jhajjar was chosen on the basis of availability. Only those students were taken who gave their

consent and showed their cooperation and interest in the study. The subjects were equated to maximum in terms of socio-demographic variables.

Tools

The Connor-Davidson Resilience Scale (CD-RISC, 2003) Connor-Davidson Resilience Scale developed by Connor-Davidson. It is consisting of 25 items. Respondents indicated their level of agreement using a 5-point likert scale from *strongly disagree* (0) to *strongly agree* (4). The total score was achieved by adding up all responses, and ranges from 0 to 100, with higher scores reflecting greater resilience. The scale showed an adequate internal consistency ($\alpha > .80$).

Adult Hope Scale (AHS, 2002). Adult hope scale developed by Snyder. It is a self report questionnaire that contains twelve questions. Items are scored on an eight point Likert scale. The scale creates three scores, a hope score that is created by summing the agency and pathway items or two separate scores that measure agency and pathways independently by totaling their respective items. Total hope scale scores range from a minimum of 8 to a maximum of 64, while agency and pathway scores range from a minimum of 4 and a maximum of 32 with high scores reflecting high levels of hope.

Meaning in Life Questionnaire (MLQ). Meaning in life questionnaire developed by Steger in (2006). It is 10-item questionnaire designed to measure two dimensions of meaning in life: (1) Presence of Meaning (how much respondents feel their lives have meaning), and (2) Search for Meaning (how much respondents strive to find meaning and understanding in their lives). It is a 7-point Likert-type scale ranging from 1 (Absolutely True) to 7 (Absolutely Untrue).

Procedure

Firstly, the subject was seated comfortably in a quiet and well illuminated room. Then the experimenter gave the Connor-Davidson Resilience Scale (CD-RISC), Adult Hope Scale (ADH), Meaning in Life Questionnaire (MEQ). After it detailed instructions for filling up the forms were given. It was ensured that the participants had understood the method of responding to all the inventories. After giving instructions the test was started. Subjects filled all the four scales. After collecting the data, the scoring was done as per the manuals. The data was tabulated and subjected to statistical analyses.

RESULT AND DISCUSSION

The present investigation sought to assess the relation between resilience, hope & meaning in life. After computing the mean and S. D.'s for the three parameters the data was subjected to regression analyses. The mean score for total sample on resilience, Hope, and meaning in life have been shown in Table 1.

Table: 1 Summary Table Showing The Mean And S.D.'S Of Male And Female

Group Statistics

	Gender	N	Mean	Std. Deviation
Resilience	Male	30	62.0000	13.59006
	Female	30	60.9333	6.56497
Hope Agency	Male	30	24.7000	3.71530
	Female	30	23.8000	4.40533
Hope Pathway	Male	30	24.9000	3.08891
	Female	30	22.0667	3.75025
Meaning (Presence)	Male	30	23.7667	3.43093
	Female	30	21.3667	4.10621
Meaning (Search)	Male	30	25.3000	5.95471
	Female	30	21.9333	4.54808

Table Iii: Summary Table Showing T-Values For Male & Female Population (N=60)

		F	Sig.	t	df	Sig. (2-tailed)
Resilience		8.729	.005	.387	58	.700
				.387	41.836	.701
Hope Agency		.465	.498	.855	58	.396
				.855	56.395	.396
Hope Pathway		1.853	.179	3.194**	58	.002
				3.194**	55.946	.002
Meaning (Presence)		1.131	.292	2.457*	58	.017
				2.457*	56.223	.017
Meaning (search)		3.496	.067	2.461	58	.017
				2.461	54.244	.017

There is no significant difference between in three groups which were used under the present study on resilience, hope and meaning in life (search). A significant difference was found in both male and female on hope pathway and meaning in life (presence).

Table III: Summary Table showing Intercorrelation matrix

		FT	AREA	Gender	Resilience	HA	HP	MiL.P	MiL.S
Family Type	(FT)	1	.179	.135	.073	-.013	.178	.183	.031
			.172	.305	.578	.924	.173	.162	.817
			60	60	60	60	60	60	60
AREA			1	-.068	.067	-.101	.106	-.084	-.309*
				.605	.609	.441	.421	.526	.016
				60	60	60	60	60	60
Gender				1	.051	.112	.387**	.307*	.307*
					.700	.396	.002	.017	.017
					60	60	60	60	60
Resilience					1	.320*	.115	.150	-.005
						.013	.380	.253	.968
						60	60	60	60
Hope Agency (HA)						1	.158	.154	.207
							.229	.240	.112
							60	60	60
Hope Pathway (HP)							1	.215	-.031
								.099	.811
								60	60
Meaning (Presence) (MIL. P)								1	.470**
									.000
									60
Meaning (Search) (MIL. S)									1
									60

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Result inter-correlational from table 11, reveal that hope pathway is a positive correlate to gender of total sample ($r=0.387$; $p<.01$). Meaning in life's sub-scale presence is positive correlate to gender of total sample ($r= .307$; $p<.05$) and meaning in life (presence) is positively correlate to meaning in life (search) for total sample ($r= .470$; $p<.01$). Meaning in life (search) is negatively correlates to area ($r= .309$; $p<.05$).

Multiple Regressions:

Results of step-wise multiple regressions revealed that predictor has been found significant contributor for population of the sample.

Table Iv: Regression Summary (Dependent Variable- Meaning In Life (Presence))

Predictors	R	R ²	Adjusted R ²	B	β	F (for R ²)
Gender	.307	.094	.079	2.400	.307	6.035

Whereas, multiple regression results shown in table IV of the total sample which reveals that gender is a predictor of meaning in life (presence) and 9% of variance is accounted by gender for meaning in life (presence).

Table V: Regression Summary (Dependent Variable- Meaning In Life (Search))

Predictors	R	R ²	Adjusted R ²	B	β	F (for R ²)
Area &	.309	.096	.080	-3.24	-.290	6.035
Gender	.422	.178	.149	3.15	.280	

Whereas, multiple regression results shown in table V of the total sample which reveals that gender and area is a predictor of meaning in life (search) and 9% of variance.

Table Vi : Regression Summary (Dependent Variable- Hope Pathway)

Predictor	R	R ²	Adjusted R ²	B	β	F (for R ²)
Gender	.387	.150	.135	2.833	.387	10.202

Multiple regression results shown in table IV of the total sample which reveals that gender is a predictor of hope pathway and 15% of variance is accounted by gender for hope pathway.

Table Vii : Regression Summary (Dependent Variable- Hope Agency)

Predictor	R	R ²	Adjusted R ²	B	β	F (for R ²)
Resilience	.320	.103	.087	.123	.320	6.630

Multiple regression results shown in table VII of the total sample which reveals that resilience is a predictor of hope agency and 10% of variance is accounted by resilience for hope agency.

Table Viii: Regression Summary (Dependent Variable- Resilience)

Predictor	R	R ²	Adjusted R ²	B	β	F (for R ²)
HA	.320	.103	.087	.835	.320	6.630

Multiple regression results shown in table VIII of the total sample which reveals that hope agency is a predictor of resilience and 10% of variance is accounted by hope agency for resilience.

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Religious Commitment and Paranormal Beliefs across Gender and Educational Stream

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ABSTRACT

Religious Commitment is an “internal” quality that reflects the individual’s self-rating on “religiousness” as well as the degree to which the individual seeks to follow religious teachings in everyday life, finds religion to be personally helpful, and gains personal strength by trusting in a higher power. Whereas paranormal phenomena are defined as events that violate the boundaries of current scientific belief. Religious commitment and paranormal beliefs share important qualities and generally are positively related. In the present study these variables were studied i.e. religious commitment and paranormal beliefs among University students. Purposive sampling technique was employed. 100 students from Jammu University, 50 from each educational stream, i.e. from arts and science stream were taken. Religious commitment and paranormal belief was compared across the gender too. Results were non-significant between males and females in paranormal beliefs but significant results in both males and females in religious commitment was found. The results were significant among arts and science students in paranormal beliefs and non – significant in religious commitment. A positive relationship was found between religious commitment and paranormal beliefs.

Keywords: *Religious commitment, paranormal beliefs, University Students, Gender.*

Whereas spirituality is concerned with transcendent aspects of personal existence, and refers to personal, subjective aspect of religious experience. Religiosity involves thinking, feeling and behaving in accordance to doctrinal beliefs, which are endorsed in a religious institution. Religious commitment is a term loosely used to reflect level of religiosity. It attempts to capture how internally committed the person is to his religion. One of the best indicators of religious commitment is the estimation of intrinsic religious motivation or intrinsic religiosity, defined as the “degree to which a person adheres to his or her religious values, beliefs, and practices and uses them in daily living. In other words, religious commitment indicates the amount of time

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spent in private religious involvement, religious affiliation, the activities of religious organization and importance of religious beliefs which are practiced intrapersonal and interpersonal in daily living (Zawawi 2015). The word Paranormal was coined in late 1915 that mean- an experience that lies outside “the range of normal experience or Scientific Explanations. The term paranormal is used to describe the phenomenon, which if authentic –violate basic limiting principle of science. The question of why so many people, including the well educated, believe in the possibility of such phenomenon has perplexed the scientific community and as such the investigation of individual’s differences in the belief in the paranormal has been a prominent avenue of psychological inquiry. Research has indicated that beliefs in the paranormal are associated with higher rather than the lower education and intelligence. Other findings suggest that belief in paranormal phenomena is not associated with the rejection of mainstream science or technology, at least among college and university students. Numerous researchers have looked toward demographics such as age, sex, and education level to explain differences in beliefs. Numerous studies indicate that there is a significant difference in beliefs in the paranormal between genders. Females have expressed stronger beliefs in the paranormal than males. Females were higher in their beliefs of ESP, and ghosts, while men had higher beliefs in UFOs and the Loch Ness Monster (Irwin, 1993). A study by Aarnio and Lindema (2004) found relationship between religious and paranormal beliefs was positive among paranormal believers and skeptics but negative among religious people. Aarnio and Lindeman (2005) examined the connections between paranormal beliefs and educational level, discipline, length of education, gender, and analytical and intuitive thinking and found that university students had less paranormal beliefs than vocational school students, which was partially due to university students’ stronger preference for analytical thinking. Women’s higher intuitiveness and lower analytical thinking partially explained their higher amount of beliefs compared to men. South Korean and American college students were compared on paranormal beliefs, first in 1999 and then in 2009 both in Korea and in the United States. In 1999, Korean students showed higher scores than the United States students in every sub type of paranormal beliefs except for religious belief. In 2009, Korean students showed higher scores in paranormal beliefs except for religiosity and spiritualism Oh, Kim & Oh (2011). Some studies suggest that a person inclined to religious beliefs is also susceptible to paranormal beliefs, and vice versa (Goode, 2000).

RESEARCH METHODOLOGY

Variables

Independent variables

Gender

Educational Stream (Arts & Science)

Dependent variables

Religious Commitment

Paranormal Beliefs

Objectives

- To assess the level of Religious Commitment and Paranormal Beliefs among Gender.
- To assess the levels of Religious commitment and Paranormal Beliefs among Educational stream (Science and Arts).
- To Assess the Relationship between Religious Commitment and Paranormal Belief among University Students.

Hypotheses

- There will be a significant difference in the level of Religious Commitment and Paranormal Beliefs among Gender.
- There will be a significant difference in the level of Religious Commitment and Paranormal Beliefs among Educational Stream.
- There will be a relationship between Religious Commitment and Paranormal Belief among University Students.

Sample

The purposive sampling consisted of 100 people from University of Jammu consisting of 50 from each educational stream i.e. from arts and science stream. Thereby again dividing into 2 segments 25 females (Arts) and 25 males (Arts) and 25 females (science) and 25 males (science).

Tools

1. The Religious Commitment Inventory-10 (RCI-10; Worthington et al., 2003) describes the level of one's religious commitment. That is, it is used to assess the degree to which a person adheres to his or her religious values, beliefs, and practices and uses them in daily living. RCI subscales measure intrapersonal religious commitment with 6 items, and interpersonal religious commitment with 4 items. Thus, RCI-10 consists of a total of 10 items rated on a five point scale from 1 = Not at all true of me to 5 = totally true of me. All items of Intrapersonal religious commitment had factor loadings of .59 or above and those of Interpersonal religious commitment had factor loadings of .62 or above. The coefficient alphas were .93 for the full scale, .92 for Intrapersonal Religious Commitment, and .87 for Interpersonal Religious Commitment (Worthington et al., 2003).

2. Paranormal belief. The Revised Paranormal Belief Scale contains 26 items with a 7-point rating scale for each statement (1=strongly agree and 7=strongly disagree). Responses are taken at face value, aside from number 23 whose response is reversed, and added together to determine the score. The revised version of this scale has been shown to have higher reliability and validity than its predecessor and also an increased cross-cultural validity (Tobacyk, 2004). The Revised Paranormal Belief Scale measures 7 aspects of paranormal belief: traditional religious belief, psi, witchcraft, superstition, spiritualism, extraordinary life forms, and precognition.

RESULTS

The current study was conducted to assess the level of religious commitment and paranormal beliefs among *university students*. After the collection of data and scoring, statistical analysis

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was done to test the formulated hypothesis of the study. The results have been discussed below:

Table-1 Mean, SD and t-test of Male and Female students of paranormal beliefs

VARIABLES	GENDER	N	Mean	SD	T	Sig.(2-tailed)
Traditional Religious beliefs	MALE	50	5.705	1.637	0.672	0.503
	FEMALE	50	5.505	1.324		
PSI	MALE	50	3.895	1.101	0.963	0.338
	FEMALE	50	3.675	1.182		
Witch craft	MALE	50	3.465	1.487	-3.522	0.001
	FEMALE	50	4.375	1.061		
Superstition	MALE	50	2.979	1.464	-2.634	0.010
	FEMALE	50	3.680	1.181		
Spiritualism	MALE	50	3.743	1.129	1.656	0.101
	FEMALE	50	3.395	0.969		
Extra ordinary life farms	MALE	50	3.853	1.042	0.424	0.673
	FEMALE	50	3.766	1.002		
Pre Cognition MOI	MALE	50	3.880	1.111	-1.520	0.132
	FEMALE	50	4.180	0.844		
Total	MALE	50	27.520	4.394	-1.218	0.226
	FEMALE	50	28.576	4.269		

Table-1 shows the mean, SD, t-values and p-values on all the 7 dimensions of paranormal beliefs of both Male and Female students. Mean and SD on the dimensions of Traditional Religious beliefs, PSI, Witch craft, Superstition, Spiritualism, Extra ordinary life farms and Pre Cognition MOI. Mean for Male is 5.705, 3.895, 3.465, 2.979, 3.743, 3.853, 3.880 and total is 27.520 and SD for male is 1.637, 1.101, 1.487, 1.464, 1.129, 1.042, 1.111 and total is 4.394 respectively. Mean and SD of Female students is 5.505, 3.675, 4.375, 3.680, 3.395, 3.766, 4.180 and total is 28.576 and SD is 1.324, 1.182, 1.061, 1.181, 0.969, 1.002, 0.844 and Total is 4.269 respectively. The t- value and P-value, of both Male and Female students came out to be t-value is 0.672, 0.963, -3.522, -2.634, 1.656, 0.424, -1.520 and total -1.218 and p-value is 0.503, 0.338, 0.001, 0.010, 0.101, 0.673, 0.132 and total 0.226 which indicates that traditional religious beliefs, PSI, Spiritualism and pre-cognition MOI and extra ordinary life farms are non-significant while other dimensions viz. Witch craft and Superstition are significant. And the total result is non-significant.

Table-2 Mean, SD and t-test of Male and Female students of Religious Commitment

VARIABLES	GENDER	N	Mean	SD	T	Sig. (2-tailed)
Religious Commitment	MALE	50	31.080	5.371	3.952	0.000
	FEMALE	50	27.060	4.783		

Table-2 Mean, SD and t-test of Male and Female students in religious commitment. Mean of Male students is 31.080 and SD is 5.371 Mean of Female students is 27.060 and SD is 4.783. The t-value and P-value of both Male and Female students came out to be 3.952 and 0.000 respectively, which indicates that the results are significant.

Table-3 Mean, SD and t-test of Arts and Science students on seven dimensions of Paranormal Beliefs

VARIABLES	STREAMS	N	Mean	SD	T	Sig. (2-tailed)
Traditional Religious beliefs	ARTS	50	4.980	1.535	-4.622	0.000
	SCIENCE	50	6.230	1.140		
PSI	ARTS	50	3.800	1.206	0.131	0.896
	SCIENCE	50	3.770	1.085		
Witch craft	ARTS	50	3.850	1.508	-0.511	0.610
	SCIENCE	50	3.990	1.215		
Superstition	ARTS	50	2.786	1.402	-4.306	0.000
	SCIENCE	50	3.873	1.104		
Spiritualism	ARTS	50	3.595	1.187	0.242	0.809
	SCIENCE	50	3.543	0.931		
Extra ordinary life farms	ARTS	50	3.773	1.183	-0.353	0.725
	SCIENCE	50	3.845	0.831		
Pre Cognition MOI	ARTS	50	3.945	1.140	-0.855	0.395
	SCIENCE	50	4.115	0.824		
Total	ARTS	50	26.729	5.224	-3.172	0.002
	SCIENCE	50	29.367	2.694		

Table-3 shows the mean, SD, t-values and p-values on all the 7 dimensions of paranormal beliefs of both Arts and science students. Mean and SD on the dimensions of Traditional Religious beliefs, PSI, Witch craft, Superstition, Spiritualism, Extra ordinary life farms and Pre Cognition MOI. Mean for Arts students is 4.980, 3.800, 3.850, 2.786, 3.595, 3.773, 3.945 and total is 26.729 and SD for Arts is 1.535, 1.206, 1.508, 1.402, 1.187, 1.183, 1.140 and total is 5.224 respectively. Mean and SD of science students is 6.230, 3.770, 3.990, 3.873, 3.543, 3.845, 4.115 and total is 29.367 and SD is 1.140, 1.085, 1.215, 1.104, 0.931, 0.831, 0.824 and Total is 2.692 respectively. The t-value and P-value, of both Arts and science students came out to be t-value is -4.622, 0.131, -0.511, -4.306, 0.242, -0.353, -0.855 and total 3.172 and p-value is 0.000, 0.896, 0.610, 0.000, 0.809, 0.725, 0.395 and total 0.002 which indicates that PSI, Witch craft, Spiritualism, pre-cognition MOI, extra ordinary life farms are non-significant while other

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dimensions viz. Traditional religious belief and Superstition are significant. And the results are significant.

Table-4 Mean, SD and t-test of Arts and Science Students of Religious Commitment.

VARIABLES	STREAMS	N	Mean	SD	T	Sig. (2-tailed)
Religious Commitment	ARTS	50	28.560	5.747	-0.936	0.352
	SCIENCE	50	29.580	5.139		

Table-4 Mean, SD and t-test of Arts and science students in religious commitment. Mean of Arts students is 28.560 and SD is 5.747 Mean of science students is 29.580 and SD is 5.139. The t-value and P-value of both Arts and science students came out to be -0.936 and 0.352 respectively, which indicates that the results are non-significant.

Correlation Table

Variable	Parameter	Religious Commitment	Paranormal Beliefs
Religious Commitment	Pearson correlation Sig(2 tailed)	1	0.329**
		100	100
Paranormal Beliefs	N	0.329**	1
		100	100

Correlation is significant at the 0.01 level (2-tailed).

DISCUSSION:

The Present study was conducted to measure the level of Religious commitment and paranormal beliefs among university students. The first objective of the study was to assess the level of religious commitment and paranormal beliefs in male and female students. On all the dimensions of paranormal beliefs i.e. Traditional Religious belief ,PSI, Witch craft, Superstition, Spiritualism, Extra ordinary life farms and Pre cognition. Significant differences were obtained in which craft and superstition, And Non-significant in PSI, traditional religious belief, extra ordinary life farms, spiritualism, and pre cognition. In the total of all the dimensions, the results were non-significant between males and females in paranormal beliefs. And the results of religious commitment are significant in both males and females. Therefore, the alternate hypothesis i.e. there will be non-significant difference in religious commitment and paranormal beliefs in university students, is rejected.

The second objective of the study was to assess the level of Religious commitment and paranormal belief in arts and science students of university on all the dimensions of paranormal beliefs the results are significant in traditional religious belief, superstition and non-significant in

Psi, pre cognition Witch craft, spiritualism, extra ordinary life farms in the total of all the dimensions the results are significant between arts and science students. And the results of religious commitment are non-significant. Therefore, the alternate hypothesis i.e. there will be a non-significant difference religious commitment and paranormal beliefs in arts and science students of university, is rejected.

The third objective of the study was to examine the relationship between religious commitment and paranormal beliefs among the University student, and the strong positive relationship was found between religious commitment and paranormal beliefs. Therefore, the alternate hypothesis is accepted as there was a relationship between religious commitment and paranormal beliefs. Mean of female students in paranormal beliefs is more than males which means that females students have more beliefs on paranormal. And in case of religious commitment males students have more beliefs on religion. In case of arts and science students, mean of both paranormal belief and religious commitment is more in science students. The studies which support our hypotheses are i.e. Numerous researchers have looked toward demographics such as age, sex, and education level to explain differences in beliefs. Numerous studies indicate that there is a significant difference in beliefs in the paranormal between genders. Females have expressed stronger beliefs in the paranormal than males. Females were higher in their beliefs of ESP, and ghosts, while men had higher beliefs in UFOs and the Loch Ness Monster (Irwin, 1993). Blackmore (1997) found that there was a large significant sex difference between believers and non-believers. Blackmore found that over 70 percent of the female respondents were believers, compared to 48 percent of the males. The education level of participants is also considered when investigating belief systems. Another study suggests that religious and paranormal beliefs are negatively connected or independent of each other (Donahue, 1993; MacDonald, 2000; Rice, 2003).

CONCLUSION

The present study was conducted on seven dimensions i.e. Traditional Religious belief , PSI, Witch craft, Superstition, Spiritualism, Extra ordinary life farms and Pre cognition to measure the level of Religious commitment and paranormal beliefs among university students in male/female students and arts/science students, on all the total dimensions the results were non-significant between males and females in paranormal beliefs but significant results in both males and females in religious commitment was found. The results are significant among arts and science students in paranormal beliefs and non-significant in religious commitment.

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Self-Efficacy and Locus of Control in Indian Youth

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ABSTRACT

The purpose of the current study was (i) to find out the role self-efficacy and locus of control of the high and low performing job aspirants (ii) to study the Gender differences of the job aspirants. A random sample of 465 job aspirants males (n=264) and females (n=201) was selected from participants appeared in the Service Selection Board of Mysore. Participants belong to various part of India and their age ranges were between 20 to 27 years with Mean of 21.85 years and SD 1.15 years. Self-efficacy was measured using the General Self-efficacy Scale by Jerusalem & Schwarzer, 1995) and the Locus of Control Scale by Rotter, J.B (1966). The data was analyzed using descriptive statistics (mean, S.D) and ANOVA. The results indicated that there were no significant differences in their self-efficacy of performing and non-performing groups. Further no significant gender differences were found in Self-efficacy. In addition both men and women were differed in their Locus of control and females were found to be external locus of control. The study brought out that high self-efficacy with internal locus of control influence the participants perform well in their field to attain success.

Keywords: *Self-Efficacy, Locus Of Control, Job Aspirants.*

Indian Youth employed in an organization is one of the top priorities in his life after completion of formal education. An individual who attains majority he acquires the responsibility to earn on his own and stand independent in life is a dream. To achieve his/her dream everyone needs to develop various skills and potentials to suit/match up to the organizational requirements. Youth who aspires to become an employee he obtain information to appraise their self-efficacy from their actual performance, their vicarious experiences, encouragement they receive from others and their psychological reactions which will help them to understand about their own self as well as their potentials to achieve their goals. Self-efficacy is a personality variable which influences occupational choice, persistent efforts, resilience and achievement (Suhunk, 1995; Bandura, 1997) compared with others who doubt their capabilities or those who has low sense of efficacy. Self-Efficacy is the key construct in Bandura's social cognitive theory and represents people's beliefs about their capabilities to produce designated levels of performance that exercise

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influence over events that affect their lives. Efficacy's beliefs have a powerful influence on behaviour, involvement in their job. In terms of feeling a low sense of self-efficacy is associated with depression, anxiety and helplessness that reduce the performance.

Bandura (1997) defined Self-efficacy as personal judgements of one's capabilities to perform tasks at designated levels. According to him people regulate their level and distribution of effort according to the effects they expect their actions to have. Consequently their behaviour is better predicted from their beliefs than from the actual consequences of their actions.

Based on primarily on social cognitive theory, studies have found that individuals with high self-efficacy set higher goals and have higher performance than individuals with low self-efficacy (Thomas & Mathieu, 1994; Wood & Bandura, 1989). Self-efficacy thought to reflect both an individual's self-perceived ability and a motivational component. High Self-efficacy also has been associated with complex skill acquisition and has been shown to be a strong predictor of complex air traffic controller performance for instance (Ackerman, Kanfer & Goff, 1995).

People's beliefs about their abilities in particular domains are thought to be important in motivating them to do what they can do to achieve (Hawthorne, 2004). Self-efficacy defined as "confidence in one's abilities to successfully perform particular tasks". Self-efficacy is related to only to performance expectations and does not depend on the value placed on the task (Hawthorne, 2004 & Bandura, 1997) notes that it is possible to have high self-efficacy about a capability that one does not particularly value as well as reverse. This we interpret as, the more specific and skill related the self-efficacy measure is the more predictive it is likely to be for performance achievement.

According to Bandura (1977, 1986) individuals with a high sense of perceived Self-efficacy in relation to a specific task or goal think feel and act differently from those who view themselves as inefficacies. Those with a resilient sense of efficacy tend to view difficult tasks as challenges to be overcome instead of problems to be avoided. Highly efficacious individuals are also more likely to perceive success and failure differently from those with low self-efficacy. The former tend to attribute failure and setbacks to insufficient effort and as a consequence. Expend more energy and commitment in an effort to overcome failure and achieve their goals. In contrast with low Self-efficacy are inclined to concentrate on their failure and self-doubts, thus hampering their motivation, commitment and persistence in achieving their goals (Jeffreys, 1998).

Studies indicate performance is related to Self-efficacy; when a person feels confident, their performance is enhanced (Philips & Gally, 1997); Wood & Bandura, 1989). In order to perform a skill, a person needs knowledge, psychomotor skills and confidence in their ability. Performance also related to an individual's locus of control because when a person believes he/she control over outcome, performance is improved. Thomson and Dass (2000) identify that when a person's self-efficacy enhances or improves their task interest, persistence, ability and desire to exert effort and in the end task performance. Increased level of self-efficacy and locus of control are desirable and have been associated with increased motivation, goal setting and achievement

(Bandura, 2001). Zimmerman (2000) believed that Self-efficacy is a highly effective predictor of student's motivation and learning. For instance, research shows that a high level of self-efficacy leads to accepting challenging goals (Vancouver et al, 2001) and firmer commitment to achieving them (Bandura, 1989). Furthermore self-efficacy, along with other traits, such as high self-esteem, has been linked to both job satisfaction and job involvement (Judge&Bono, 2001). Those that have report positive correlations between self-efficacy expectations and achievement (Lent et al, 1987, Chako&Huba, 1991).

Laschinger (1996) argues that this relationship indicates that when students came across difficulties in their programme, those with higher self-efficacy beliefs will make more effort to overcome these obstacles and persist longer than those who doubt their capabilities. Zimmerman's (2000) review of the findings into self-efficacy beliefs concludes that they are positively related motivation. Researchers have found that the students who are self-efficacious are more likely to undertake difficult and challenging tasks than students who are not self-efficacious. Zimmerman and Kit Santas (1999) found in their study of the revision strategy used by the 84 girls, that those who attributed problems with their writing to strategy use had higher levels of self-efficacy, higher writing skill, more positive self-reactions and greater intrinsic interest in the writing process. In contrast girls who attributed lack of success to low ability had significantly lower levels of Self-Efficacy writing skills and self-reactions (Zimmerman &KitSantas, 1999). The attribution to strategy use is beneficial to self-motivation because they preserve self-efficacy beliefs much more than ability or effort attributions.

Locus of control

Julian Rotter is credited for introducing the concept of Locus of control. His work was largely based off the work of Albert Bandura, who developed Social Learning Theory. Rotter explains that humans can interpret events as being either a result of one's own actions or external factors. He goes on to suggests that whether or not people believe a situation or event is under their own control will influence their reward expectancy and behaviour. Locus of control is a construct that deals with personal orientations of beliefs regarding the reinforcement that follows behaviour (Rotter, 1966). Though the construct was originally rooted in Clinical Psychology, it has been studied across various fields including education, health and clinical practice and so on, in order to observe individuals and predict their behaviours.

Rotter's Internal-External Scale

As one of the initial investigations of Locus of control, Rotter's (1966) measurement of the construct has been widely adopted in research studies and his measure was developed based on a series of early attempts from his students (James,1957; Phares, 1957) as well as through his collaboration with colleagues (Rotter, Liverant& Crowne, 1961). Locus of control describes where people the cause of their actions. Those who believe that outcomes are results of their own actions have an internal locus of control, while a person with an external locus of control attributes outcomes to the environment, luck or fate. Therefore, those with an internal locus of

control will view rewards as reinforcements of their own actions, thoughts or behaviour (Rotter, 1966).

An internal locus of control has been one of the psychological characteristics most often used as predictive of entrepreneurship (Perry 1990, Kanfmann & Walsh, 1995). Gilad theorizes that the influence of Locus of control on perceptual alertness (i.e. ability to see opportunities in the environment) explains the influence of locus of control on entrepreneurs. Gilad notes that almost three decades of research consistently shows that internals are alert to discover opportunities and scrutinize their environment to find information needed to formulate the optimal approach to develop opportunities.

According to the literature an internal locus of control is generally more beneficial than an external one in that the former is correlated with better emotional health and well-being. People with higher self-esteem are more often internally oriented (Fish & Karabenick, 1971). Locus of control is an individual's belief regarding the causes of his or her experiences and the factors to which that person attributes success or failure (Njus & Brockway, 1999). This can be either internal or external (Rotter, 1966). If a person has an Internal locus of control, that person attributes success to his or her own effort and abilities. A person who expects to succeed will be more motivated and more likely to learn. This person will seek out information and is more likely to share good study habits and positive academic attitude. A person with an External locus of control on the other hand will be less likely to make the effort to learn since he or she attributes his or her success to luck or fate.

Self-efficacy and locus of control

Rotter's asserted that an individual's locus of control influences the performance level of the individual. Because an external locus of control has been proposed to be related to passivity and learned helplessness (Rotter, 1992) and because perceived environmental controllability has been found to be related to greater self-efficacy (Phillips & Gully, 1977; Wood & Bandura, 1989) it is reasoned that persons with a more internal locus of control will have a higher self-efficacy than individuals with a more external locus of control. Furthermore, studies have shown that self-efficacy has an effect on a person's performance. That is even if a person has the ability to perform well on a task, if he or she does not believe that she or he is capable of performing well (i.e., low Self-efficacy), it is unlikely that high performance goals will be set (Phillips & Gully, 1997). Phillips and Gully (1997) suggest that it is also reasonable to expect that personality variables such as locus of control will have an effect on an individual's level of self-efficacy. Wood, Bandura and Bailey (1990) suggest that stronger self-efficacy has also been shown to lead higher self-set goals.

Feltz (1994) suggests that judgements of low self-efficacy are associated with lower level of effort and lack of persistence; whereas high self-efficacy is associated with higher levels of efforts and persistence. Research suggests that individuals with higher levels of self-efficacy and internal locus of control are more likely to persist in their performance of a task for longer

periods of time than individuals with low self-efficacy and external locus of control (Stranzer, Waldrop, Hamsley, & Jenkins, 1998).

Locus of control and self-efficacy are also theoretically related as they are two of the four components of the higher order construct of positive self-concept (Judge, Locke & Durham). Judge, Erez, Bono and Thoresen (2002) conducted a meta-analysis and found higher correlation between internal locus of control and General self-efficacy. The large body of research into locus of control indicates that Internal locus of control is related to positive functioning in a number of areas. Colquitt et al and Tracey et al found that an individual's self-efficacy and locus of control were significant factors influencing motivation to learn and motivation to transfer learned skills to performance.

PRESENT STUDY

Aim

The aim of the present study examines the association between Self-efficacy and Locus of Control among youths (Job aspirants) in India and to explore gender differences in the relationship between these two variables. The specific objectives of the study were:

Keeping in view the previous literature and theories, following hypotheses were phrased for the present study.

- To find out the relationship between General self-efficacy and Locus of control of job aspirants.
- To find out significant difference between high and low performing Male and Female Job aspirants on their Self-efficacy.
- To find out the significant difference between high and low performing Male and Female Job aspirants on their Locus of control.

METHODS

Participants

The participants comprised of 465 (264 males, 201 females) job aspirants randomly selected during the selection process at SSBs. Participants belong to various part of India and their age ranges were between 20 to 27 years with Mean of 21.85 years and SD 1.15 years. The mean score of male were 21.82 and SD 1.13 and the mean score of female were 21.87 and SD 1.17. The participants were divided into two groups as performing group of 71 participants (minimum 240 and above qualifying marks awarded for recommendation) and non-performing group of 394 participants (less than 240 qualifying marks awarded for recommendation).

Measures

1. General Self-efficacy Scale (Jerusalem & Schwarzer, 1995)

The GSE having 10 items used to measure employee's self-efficacy (Jerusalem & Schwarzer, 1995). There were no negatively phrased items. Possible responses ranged from not at all true (1), hardly true (2), moderately true (3), exactly true (4), yielding a total score between 10 and

40. High reliability, stability and construct validity of the scale were confirmed in earlier studies (Leganger, Kraft, & Roysamb, (2000). Alpha coefficients of .84 (Malik, 2012 and .78 (Aftab, 2010 have been obtained in earlier studies, whereas, alpha coefficient of .85 was acquired for the current sample.

2. Locus of Control Scale by Rotter, J.B (1966)

Rotter's I-E scale is a 29 item (e.g., "1. a. Children get into trouble because their parents punish them too much.1. b. The trouble with most children nowadays is that their parents are too easy with them.2. a. Many of the unhappy things in people's life are partly due to bad luck.2. b. People's misfortunes result from the mistakes they make"). This questionnaire is a series of statements about a person attitudes and traits. Each statement represents a commonly held belief. Read each statement and decide to what extent it describes you. There is no right or wrong answers. You will probably agree with some of the statements and disagree with others. Please indicate your personal feelings about each statement below by marking the letter that best describes your attitude or feelings. Please be very truthful and describe about yourself as you really are, not as you would like to be. The questions ask about your opinion. Note there are 6 filler items (1, 8, 14, 19, 24, and 27) and 23 scoring items. Score 1 point for each of the following items: 2b, 3a, 4a, 5a, 6b, 7b, 9b, 10a, 11a, 12a, 13a, 15a, 16b, 17b, 18b, 20b, 21b, 22a, 23b, 25b, 26a, 28a, 29b. The total score is taken to label an individual as 'Internal' or 'External'. Low score indicates external locus of control and a high score indicates internal locus of control (Note that this is reverse scored from the original Rotter Scale).The test –retest reliability of the scale is satisfactory (Twenge et al, 2004), and its validity has been extensively documented (cf. Lefcourt, 1991). In spite of recent criticisms, it is still the most widely used and cited scale to measure Locus of Control (Beretvas, Suizzo, Durham and Yarrell, 2008). The average score on the I-E scale have increased consistently over the past four decades, and was calculated at 11.96 by 2002 (up from 8.7 in 1960) (Twenge et al, 2004. It was administered in its full 29- item forced choice format.

Statistical Analysis

To achieve the objectives of the study the data were analysed descriptive statistics such as Mean, Standard Deviation were worked for the total sample for all groups (high/low and male/female). Two- way ANOVA was performed to test the significant difference between groups (male/female) job aspirant on Self-Efficacy and Locus of control. Pearson Product Moment correlation was used to test the relationship between the variables.

RESULTS**Table- 1: Descriptive Statistics for Self-efficacy and Locus of Control for Males and Females (n=465).**

Mean	SD	Skewness	Kurtosis
35.16	3.16	-.78	1.11
34.11	2.11	-.110	.432

General Self-Efficacy mean score 35.16 and SD of 3.45 where we find high individual variation in the General Self-Efficacy. The skewness is .733 and kurtosis value found to be 1.11 and sample distribution is normal. The mean score of Locus of Control score were found to be 34.11, with its SD of 2.11 and skewness of -.110 and kurtosis .432 respectively where we find moderate variation in locus of control. The sample distribution is also normal.

Table-2: Shows the descriptive Statistics and Correlation co-efficient between Locus of Control and Self-efficacy.

Variables	Mean	SD	1	2
1. Locus of Control	34.11	2.11	1	
2. Self-Efficacy	35.16	3.45	.055	1

* $p < .05$ ** $p < .01$

The descriptive statistics presented in the table included the mean and standard deviation of all study variables. The obtained mean scores indicate that there is no significant variation between the mean scores of the variables. It reveals that there is no significant relationship between locus of control and Self-efficacy of the job aspirants.

Table-3: Shows the summary of 2X2 ANOVA (2 groups X 2 gender) on Self Efficacy of Male and Female job aspirants.

Source of Variance	Sum of Squares	df.	Mean Square	F. Ratio	Sig
Group	27.616	1	27.616	2.315	.129 (ns)
Gender	2.877	1	2.877	.241	.624 (ns)
Group X Gender	.432	1	.432	.036	.849 (ns)
Error	5547.344	465	11.930		

n.s/ * $p < .05$. ** $p < .01$

Self-Efficacy and Locus of Control in Indian Youth

The above table clearly shows the 2x2 ANOVA (2 groups X 2 gender) on General Self Efficacy of Males and Females and high and low performing job aspirants. The results of the high and low performing job aspirant's self-efficacy is not differed much which clearly reveals that there is no significant variance between the self-efficacy (.12) of high and low performing groups. To test whether there is any gender variance in their self-efficacy, the results indicates that there is no significant variance between Males and Females self-efficacy of job aspirants.

Table-4: Shows the summary of 2X2 ANOVA (2 groups X 2 gender) on Locus of Control of Male and Female job aspirants.

Source of Variance	Sum of Squares	df.	Mean Square	F. Ratio	Sig
Group	1.751	1	1.751	.390	.533 (ns)
Gender	6.720	1	6.720	1.496	.222 (ns)
Group X Gender	1.751	1	1.751	.390	.533 (ns)
Error	2088.360	465	4.491	-	-

n.s. * $p < .05$ ** $p < .01$

The results show the Locus of control of Male and Female and high and low performing job aspirants. The result indicates that the high and low performing job aspirants did not show much variance in their locus of control (.533) which indicates that majority of job aspirants are internal locus of control. The result indicates that there is no significant variation in their control beliefs of male and female job aspirants (.222). On the whole it is observed that neither the performance nor the gender makes any impact on the control beliefs of job aspirants.

DISCUSSION

The present study was aimed to explore the self-efficacy and locus of control of job aspirants appeared in the Service Selection Board. Findings of the study (Table-1) revealed that self-efficacy and locus of control did not vary much among the job aspirants. Self-efficacy helps the individuals to keep up their efforts for accomplishing their goals as well as making conscious decisions to pursue a certain course of action (Bandura as cited in Lucas & Cooper, 2005). The present study supports that the participants are highly motivated and competitive to perform optimum level to achieve success. The motivational influences of self-efficacy and effectiveness of goal relevant efforts could be a possible reason that the candidates are similar in their self-efficacy and locus of control.

The findings of (Table-2) revealed that there is no significant relationship between self-efficacy and locus of control of the job aspirants. An individual with high sense of self-efficacy belief coupled with internal locus of control tend to perform better in their task compared with low self-

efficacy with external locus of control. Locus of control has different levels in men and women. This construct is important for a person's perception and reaction to environmental stimuli. Locus of control is linked with self-efficacy i.e., an individual with high sense of self-efficacy and internal locus of control can perform better than a person with low self-efficacy and external locus of control. The present finding is not supporting to the hypothesis and the locus of control and self-efficacy independently plays a significant role on the performance of the candidates.

Result of the study (Table-3) showed no significant variation between males and females in self-efficacy and performance. Self-efficacy directly influences the individual performance and his/her commitment to perform the assigned task. Results also indicated that student's react negatively when they perceive that they are not capable of high levels of performance had a direct positive relationship on their performance. In the present study result reveals that the job aspirant develops high sense of self-efficacy belief by underwent various stages of selection process irrespective of gender. The findings of Brown (2009) that individuals with high self-efficacy were highly motivated and tried harder and believed that they would succeed in the end, whereas those with low self-efficacy as also found to limit the extent to which they participate in an endeavor and are more apt to give up at the instance of any difficulty.

Locus of control is linked with self-efficacy, people with high self-efficacy significantly having internal locus of control and low efficacy responsible to develop external locus of control. Males turned to be more internal locus of control and females turned to be more external locus of control (Haider and Naeem, 2013). In another study a group professional students of both genders were administered the Rotter Internal External locus of control (IE) scale. Significant difference found that females were more external and study also indicates that female students have more external locus of control than male (Parsons and Schneider, 1974). The present study also revealed that male job aspirants are internal oriented than females even though the statistical data is not significant.

A study was conducted in the U.S. population pointed out that significant gender differences in locus of control have not been found for adults. However, they cite evidence that men may have a higher internal locus for queries related to educational attainment. Men have high internal locus of control as indicated by this study (Schultz and Schultz, 2005). Schneewind (1995) recommended that "children in great solitary parent families headed by women are additional probable to expand an external locus of control". This indicates women have high external locus of control and children developed under the women supervision would also develop external locus of control. All these studies support to certain extent of the results of the current research and some studies are consistent and some other studies are contrary to it.

CONCLUSIONS

Self-efficacy beliefs and internal locus of control enhancing better outcomes (success) than low efficacy with external locus of control. Individuals with same skill level may achieve much different out comes in the same task based on their efficacy beliefs and insidious self –doubt can overrule the best of skills. Similarly the highly efficacious people will likely persist in the face of

obstacles and persevere in difficult situations to attain the expected outcome (success) whereas people who doubt their capabilities often quit, which confirms their expected outcome (failure). Hence, the present study was undertaken to find out the relationship and the effect of self-efficacy and locus of control of job aspirants appearing in selection boards. The following conclusions were drawn from the present study:

It is found that there is no significant difference in the General Self-efficacy of performing and non-performing groups as well as gender. External Locus of control found to be higher in non-performing group. It reveals that non-performing group individuals are more external orientation (Externals) than performing individuals (Internals). In Locus of control no significant difference found between male and female participants but females are shown more external orientation than male participants.

Acknowledgements

I wish to thank all the respondents without whom this study would not have been possible.

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Effectiveness of Teaching through Mind Mapping Technique

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ABSTRACT

This Present research through mind mapping techniques has been done to check the effectiveness of teaching. For this the researcher has used Tony buzan's mind mapping technique to check the effectiveness of teaching through mind mapping. This is why the main purpose of the research - the effectiveness of mind mapping technique was checked in relation to the student's academic accomplishments and for which class-8th Social Science Subject's case study for mind mapping was designed. Under this study the teaching method was taken as Independent variable where as academic accomplishment is taken as dependable variable and Gender was taken as Converter Variable. This research was experimental in nature as to check the effectiveness of the Mind Mapping technique two groups has been created. The experimental group was taught through mind mapping technique and the control group was taught through traditional method. As a sample the researcher had selected the sample of 120 students of Perna School, a Gujarati medium High-elementary school situated in Sector-6 of Gandhinagar, Gujarat. To check the effectiveness of the mind mapping technique case criteria was formulated. Conclusions were made after getting the T-ratio based upon the average score of the test case, standard deviation and standard error of the average score and the aspect of mind mapping technique were known by the questionnaires filled and it was found that the Mind Mapping technique was more effective than Traditional method.

Keywords: *Teaching, Mind Mapping Technique.*

Today is the era of modern age. The whole world is on the way of progress. The basis of the country's development and advancement depends on educational system and techniques. To go step by step with the changing times education system will also need to be improved. It is not necessary that the education will be given in the same way it was given earlier. Making improvement in the education system and using new techniques is the need of the hour. New techniques can be implemented into the teaching system which suggests the need of the hour.

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Effectiveness of Teaching through Mind Mapping Technique

Social Sciences study, in terms of maintaining motivation and development of the students it maintains the technical value for the subject and skill development. The study of the Social Science helps in developing better social values and also helps in understanding the method and techniques.

Social science's teaching in an informative manner and with clear concept makes students understand it in an easy way which can help them in further classes. Today, students are showing less interest in the social science subject of the arts stream. In today's world there is lot of awareness and it will keep on increasing day by day this is why it has become necessary to walk along with all. To solve the kind of educational problems it becomes necessary to change and improve the process of educational methods, usage and practices. To make study Simple, useful and meaningful there are many methods and functions are available. From which self realization method, CAI Method, CAL Method, conceptual map method was used as an experiment and it is very effective. A similar usage is MIND MAPPING.

According to Tony Buzan (2000), Mind mapping is an application that gives us the meaningful information to understand in a simple way. Mind Mapping Technique prepares the mind in a way that information can be used in logical and imaginary way to make an image in the brain. In Mind Mapping Technique first main idea is specified and then the linear view is explained. It is also useful for self and group in which it can have more effect than written review. This method is suitable for teachers and students for the recurrence and easy to understand hard topics. In addition, it also promotes student knowledge. This technique increases the creative power in new concepts and help to increase your motivation to study the students.

Does the implementation of the technique presented by Tony Buzan implemented in the social science subject of Primary and secondary class by using mind map method can bring changes to the education working system or not? And this study has been practiced by aiming to achieve the effectiveness. Mind mapping can be used for introducing the students with the principles and experiments of mind mapping, addition teacher teaching and making study more simple and joyful. To prepare Notes, annual plan, session plan, daily plan, text and presentation, exams and for special education programs it is being used and seen as a best method in the world.

The purpose of the research

Any job has a definite purpose. When the purpose of the job is clear it becomes the path for the research. The clear objective of the current research is below:

- Teaching based on class-8th Topics in social science "resources" chapter by mind mapping for creating the program usage.
- To check the effectiveness of the mind mapping application on the basis of experimental group and control group students of class-8th of social science subject's "resources" chapter.

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- To check the effect of gender in accomplishing the educational attainment in experimental group and control group students of class-8th of social science subject's "resources" chapter.
- To know the suggestions based upon the effectiveness of Mind mapping technique on experimental group of students.

Research Hypothesis

The research is presented in the following void created hypothesis

- H0₁** There will be no significant difference between the averages of case test result of experimental group and control group students.
- H0₂** There will be no significant difference between the averages of case test result of experimental group's boys and girls.
- H0₃** There will be no significant difference between the averages of case test result of Control group's boys and girls.
- H0₄** There will be no significant difference between the averages of case test result of experimental group and control group boys.
- H0₅** There will be no significant difference between the averages of case test result of experimental group and control group girls.
- H0₆** There will be no significant difference between the averages of case test result of experimental group boys and control group girls.
- H0₇** There will be no significant difference between the averages of case test result of experimental group girls and control group boys.
- H0₈** Based upon the mind mapping teaching program there will be no significant difference between the views of experimental group boys and girls.

Variables in Research

Variable means a value or component which is mobile or is personally split in nature. The property of variable is to which value can be given. Some variables included in this research are:

Variables included in the study

S.No.	Types of Variables	Variable	Level	Measurement Tools
1	Independent variable	Educational method	Mind Mapping Technique & Traditional Method	
2	Dependent variable	Academic accomplishment, significance		Self-created unit test and Questionnaires
3	Moderator variable	Ethnicity	Boys and Girls	

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4	Intervening variable	Teaching Techniques, Interactions between groups, Student interest in the subject, Individual differences in students, creativeness		
5	Control variable	Area, Medium, Class, Table of Contents, School environment ,Number of hours		

Summary of previous research

Researcher began his research and after that he tried to use previous research summary to review it. There some amendments on mind mapping usage and some amendments on conceptual map usage were found and this way the summaries of some amendments were made. Along with this the researcher has involved some paper and the article having mind mapping and conceptual map usage researching in it.

Research based on Ph.d. level by Joanne Shuttle worth (2005) ,Paul raj (2007), Raghavan Andal (1991), and Kumudha has been included. In Ph.d. level research effect of teaching applications were checked. On Mind mapping application, Joanne Shuttle worth (2005), Anthony (2006), Jasvir Kaur (2004), Thangarajathi (2006), has been incorporated. Three of these researches have been found to the effectiveness of mind mapping method. Whereas a research related to the traditional approach has been found equally effective.

Research based on M.Ed. level by Liu, P.L. & Chen, C.J. (2008), Patel (2009) has been included. In this research it is found that in the two researches conceptual application is more effective than the traditional method. Whereas in one research it is found that the conceptual application and traditional method are equally effective. Other than this some articles and papers were also included in it and in some papers and articles mind mapping and other new techniques were also used.

In previous researches the effectiveness of mind mapping technique and conceptual map technique were tested. It was based on topics like psychology, mathematics, biology, chemistry, English and environment. Pre-research was conducted on secondary school, higher-secondary schools and a higher level. In previous researches Statistics based T-test, Co- variance analysis technique were used.

Sampling

For receiving the information a small portion (sample) is being selected to represent the whole community and the findings are applicable to the entire community, it is called sampling. (Uchaat, 2009)

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In the present research effectiveness of mind mapping technique was tested on class-8th of social science subject's "resources" chapter. For this students of academic year 2014-15 from Gandhinagar's Gujarati medium were selected. This has been defined as below.

Expansion	–	Gandhinagar district
Class	–	8
Subject	–	Social Science
Academic Year	–	2014/15

Device Structure

In the end for collecting the information researcher had made a chapter test. This test was made for Accomplishment Measurement of class-8th social science's topic resources. This test was of 25 marks, in which multiple choice questions fill in the blanks and short answer questions were included. And the marks obtained against the answers can be said to be the output of the research.

Opinions on mind mapping technique were taken from students of experiment base group through a questionnaire. There were total 15 provisions in this questionnaire. Against each provision agree or disagree need to be selected by (✓) mark. This can be said as the output of the research.

Information gathering: methods and methodology

Based on academic accomplishment of exams researcher had divided the students of class-8, session 2014-2015 of Perna School into four groups (2 groups of boys and 2 groups of girls). For six days experimental group students were taught through Mind Mapping Technique and Controlled group students were taught through traditional method. After that, Chapter test and questionnaire was given to experimental group students to fill. Only Chapter test was given to the Students of controlled group to fill. And this way the information was gathered from both the groups.

Chapter Test

After six day teaching to two groups of experimental group students and 2 groups of controlled group students, the researcher had given the chapter test to be filled by the students. With the help of different invigilators Chapter Test was given at the same to all the four groups' students. To avoid any problem related to the test all the instructions were given very clearly to the students. This test was of 25 marks and 30 minutes time was given to complete the test. It was taken care that the students may not face any problem while taking the test.

Questionnaire

After the Chapter test, a questionnaire was given to fill to the Experimental group student which was scheduled from 30 minutes. _To avoid any problem related to the questionnaire all the

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instructions were given very clearly to the students. Students were asked to give clear opinions. And by using both the device researcher had collected the marks and opinion from the students.

Information Analysis

After collecting the all information, the marks obtained in the chapter test was put into the class of the variable and statistic were used for information analysis. Computer-based SPSS software was used for content analysis. Through which T-test ratio and Chi-square test can be easily attained with competence and results are authentic.

In this research T-test is used to determine the relevance of the groups. Data averages, standard deviation and T-ratio were used to check the effectiveness of teaching in social science subject through mind mapping technique. Whereas questionnaire is used to determine the meaningful differences in the opinion between the boys and girls through the use of Chi-square test (χ^2).

Research Conclusion

Following are the conclusion based on the analysis and interpretation of the information gathered in this research:

- Teaching through mind mapping technique in class-8th resource chapter in social science's subject was more effective than the traditional method.
- There is no significant difference between the average of the scores obtained in chapter test by the Experimental group boys and girls. Therefore, there is no effect of teaching on gender through mind mapping technique.
- There is no significant difference between the average of the scores obtained in chapter test by the control group boys and girls. Therefore, there is no effect of teaching on gender through traditional technique.
- There was a significant difference between the average of the scores obtained in the chapter test by the boys of experimental and control group. Therefore, teaching through mind mapping technique is effective on experimental group of boys.
- There was a significant difference between the average of the scores obtained in the chapter test by the girls of experimental and control group. Therefore, teaching through mind mapping technique is effective on experimental group of girls.
- There was a significant difference between the average of the scores obtained in the chapter test by the experimental group of boys and controlled group of girls. Therefore, the academic success of the boys taught through mind mapping technique is more as compared to the girls taught through traditional method.
- There was a significant difference between the average of the scores obtained in the chapter test by the experimental group of girls and controlled group of boys. Therefore, the academic success of the girls taught through mind mapping technique is more as compared to the boys taught through traditional method.
- View taken from the students taught through mind mapping technique is positive.

Suggestions for future researches

Suggestions for future research are born from complete researches. In context to this researcher had presented some valuable suggestions as follows:

- The effectiveness of the current research on mind mapping technique was tested in relation to the traditional method. Mind mapping technology can be checked in relation to the application of a conceptual map, grade study, work card system, self-study method, CAL method, CAI methodology and other techniques.
- Through mind mapping technique the effectiveness of the independent and supplementary teaching method can be judged.
- The effectiveness of mind mapping technique can be checked in the context of the student's individual variable.
- This study was conducted in a school of urban area, so this can be practiced in school of rural area too.
- In this research sample of few students were taken that can also be extended.
- In this research mind mapping technique was used in Gujarati medium school that can also be used in English or any other medium school also.
- A comparative study between rural and urban schools can be done.
- Current research is based upon the class-8th resources chapter of social science subject, other subjects can also be taken in the further researches.
- By using this, educational training on B.Ed, P.T.C (diploma in teaching) level can be given to check their effectiveness of teaching work and method.
- By preparing the mind map for primary school students, effectiveness can be measured.

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Do Hindi Cinema & Television Serials Propagate Caste Stereotypes through Surnames of Characters: A Content Analysis

Rakesh Kumar Maurya^{1*}

ABSTRACT

Caste affiliated surnames are very common in India. In fact, they convey a lot of caste stereotypes about the bearer. This is a subtle way of practicing caste based identities and related discriminations. The current study is a content analysis of the surnames of leading fictional characters in Hindi TV serials and movies to see if TV and cinema propagate caste stereotypes through surnames of their fictional characters. The result shows excessive use of upper caste affiliated surnames used both in TV serials and cinema while surnames affiliated to lower castes have negligible presence in these programmes.

Keywords: *Stereotype, Caste stereotype, Surname, Television, Hindi Cinema, Media.*

The word 'Caste' is of European origin and it was first used by Portuguese travellers to India in the middle of fifteenth century. This word originated from Spanish word 'Casta' which means 'lineage' or 'race' or 'a group of people having hereditary quality'. (Srinivas, 1968; Ghurye, 1932).

Caste can be defined as hereditary endogamous group, having a common name, common traditional occupation, common culture, relatively rigid in matters of mobility, distinctiveness of status and forming a single homogeneous community.

In India, it is a system of social stratification which divides communities into thousands of endogamous hereditary groups called Jati. These jatis are grouped into four varnas: Brahmin, Kshatriya, Vaishya and Shudra. There is another group known as untouchables or Dalits who are ostracised from the four varnas. Social segregation in caste system is different from ethnic segregation which is based on the physical appearances. It is also different from other forms of social segregation based on material resources. It is based on purity and impurity of occupation where Brahmins are placed at the top of the ladder, Kshatriya below them, Vaishya and Shudra at the bottom.

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The most striking feature of caste in India is the superimposition of endogamy on exogamy (Ambedkar, 1968). A person from a particular caste is allowed to marry only within his caste (Endogamy) but is not allowed to marry within his gotra (Exogamy). Gotra, lineage segment within an Indian caste that prohibits intermarriage by virtue of the members' descent from a common mythical ancestor, is an important factor in determining possible Hindu marriage alliances (Encyclopedia Britannica, 2015).

Surname: an extension of social identity and a subtle way of casteism in modern India

“What’s your name?”

“My name is Rakesh.”

“And?”

“What?”

“I mean your surname?”

“I am Rakesh Maurya”

This conversation would seem innocuous for someone having little or no knowledge about Indian society. After all, what’s wrong if someone asks your surname? Would it matter if I change the surname from Maurya to Mishra or something else? At least, in Indian society it would create a huge difference of perception. In India, your surname denotes your caste affiliation (Pandey, 2013). And if you do not have any surname, it is assumed that you belong to lower castes. Although, surnames are not a very reliable source of information, people rely on it to infer other person’s caste and social position (Jogdand, 2013).

The use of caste specific surnames is very popular among those belonging to Brahmins, Kashtriya and Vaishya- the top three varna of Indian society. In Indian society, caste based identities are commonly used and among those identities surnames are the most popular. For example, people prefer to address others by their surnames and not by their first name. Identities based on surnames are a matter of pride among forward caste people and they often show it off (Jaffrelot, 2003; Babu, and Khare, eds., 2011), however, as we go down the social ladder, the uses of surname based identities are avoided by lower caste people particularly by Dalits. The reasons behind it are not difficult to decipher. For thousands of years, Dalits and low caste people have been denied social identities. For example: For hundreds of years, Dalits were not allowed to drink water from the common source of water like pond or well as their touch would pollute the water (Tiwary and Phansalkar, 2007). Even animals were allowed to drink water from the same source but not Dalits. The message was clear: they were considered worse than four legged animals. Their touch would pollute anything even their shadow would pollute others. This was clearly a denial of human identity. Also, the history of Dalits and other lower caste people is a history of thousands of years of servitude, exploitation and oppression on the basis of being born in a particular community or caste. On a more gruesome side, it is a reminder of being forced to live outside the village or town, have no access to schools, offices and temples

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(Kshīrasāgara, 1994). Therefore, surnames for a low caste or Dalit person is related to stigmatised caste identity.

“The communicative thrust of ‘being asked about one’s surname’ is deeply related to stigmatized caste identity. In the hands of the upper castes, the banal act of ‘being asked about one’s surname’ becomes a means of emphasizing devalued nature of identity and derogatory history. It also constitutes non-recognition of individual identity. In other words, the banal act by the upper castes is an effort to make Dalits ashamed about their individual and group identity. This often leads to feeling of humiliation among Dalits.”(Jogdand, 2013)

Caste system in India still works at a subtle level even after 70 years of independence. Matrimonial sections in newspapers and many websites are testament to this practice. In fact, marriages are the time when you can see how caste practices function in Indian society. If you look at these advertisements, the social transactions happen and the currency used in these transactions is “Surname”.

Caste system is different from racial segregation observed in western countries. Unlike race, there is not based on racial differences. In fact, one can not differentiate between people of various caste based on their outward appearance (Cox, 1945). Since, it is difficult to identify someone’s caste by his/her physical appearance, people take help from surnames to infer an individual’s caste affiliation. (Despandey, 2008)

There are many institutions and social organizations, whose names as well as work are to promote the welfare of that particular caste. Brahman Mahasabha, Kshatriya Honour Society, Kayasth Samaj etc are based on caste identity and their chief task is to promote welfare of a particular caste group. While there is no problem if these organizations promote welfare of their own people however by giving it a particular caste oriented names like Brahmin, Kshatriya, Kayastha etc, it does more harm by dividing society on caste lines. Many political parties, in India, have also been created on caste lines. Bahujan Samaj party, a dominant political force in north India, has clearly identified itself with schedule castes. Samajwadi party another dominant political force in Uttar Pradesh, has clear inclination towards a particular backward caste.

Surname in India is indicative of your caste and caste indicates your social and economic status. So surnames in India have a great value and people are very much interested in surnames.

How Cinema & Television influence our cognition and behaviour?

Hindi Cinema and television are one of the most popular means of entertainment for people in north India. Apart from being entertained from these two powerful mediums, they influence our thinking and behaviour in both explicit and implicit ways.

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Cinema and television influence our life in a variety of ways. There are considerable evidence which suggest that visual media influence children in both positively as well as negatively. Albert Bandura's famous experiment of baby doll shows that children learn most of the things by simply observing their environment. Cinema and television also comes in the periphery of their observation. Research studies conducted by the most successful children programme on television "sesame street" shows how this medium can be harnessed for inculcating educational, cultural and moral values in children. A recent study conducted by University of Wisconsin-Madison in 2013 by Marie-Louise Mares and Zhongdang Pan found significant positive effect of exposure to 'Sesame Street' across a number learning outcomes like social learning and health and safety knowledge.

There are considerable body of research which shows that visual media influence a wide range of attitudes and behaviours of young people. These studies have explored the impact of media on risk taking behaviours like engaging in sex, smoking, consuming alcohol, aggression, violence as well as other behaviour such as wearing trendy and fashionable clothes and mannerism.

Brown and Newcomer (1990) found that watching more sexual content on television increases the risk of engaging in teenage sexual intercourse. Also, a positive correlation was found between watching visual media with sexual content and permissive attitude of viewers towards pre-marital sex (Calvin, Carroll and Schmidt, 1993). Another study which compared pregnant and non-pregnant girls showed that pregnant girls are more likely to have been watching soap operas prior to pregnancy as compared to non-pregnant girls (Corder-Bolz, 1981). Another study linked early experiences of sex to watching visual media (Peterson and Kahn, 1984).

In their study on Impact of media on adolescent sexual attitudes and behaviours, Escobar-Chaves and her colleagues found that adolescents exposed to NC-17 rated films are more likely to have more than one sexual partner, having more negative attitude towards use of condom and engaging in sex more often. Brown et al. emphasized that sexually explicit media work as a sexual "super peer" for teenagers in the absence of proper counseling from family and school (Brown, Halpern and L'Engle, 2005). Brown et al. created an index known as 'sexual media diet' (SMD) to measure the sexual content in mass media. Their study revealed that white adolescent girls between 12 to 14 years in the top 20% of the SMD density are more than twice likely to have had sexual intercourse as girls in the lower 80% of SMD density.

Smoking among youth is another area where effect of television and cinema is very much visible. Strong evidence of this effect has led the National Cancer Institute to officially declare a causal relationship between smoking in films & television and starting of smoking among youth (National Cancer Institute, 2008). Another study by Heatherton and Sargent found that adolescent with high exposure to smoking in films are three times more susceptible to try smoking in real life as compared to those with low exposure. This effect remained significant

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even after controlling other variables like personality factors, parenting style and socio-demographics (Heatherton and Sargent, 2009). Cross-cultural studies have also confirmed this relationship between exposure to smoking in films and initiation of smoking among youth (Hanewinkel and Sargent, 2008).

There are considerable evidence which suggests relationship between exposure of alcohol consumption in films and television and Initiation of drinking alcohol among youth. Sargent et al. found, while controlling other social variables, significant relationship between watching alcohol consumption in films and its consumption among teen in U.S. (Sargent et al., 2006). A similar cross-sectional study also found the relationship between viewing alcohol use in films and initiation of drinking among US adolescents (Dalton et al., 2006).

Violence and aggression shown on television and films also influence our behaviour in real life. There are many research studies including detailed cross sectional and longitudinal studies which have concluded a very clear cause-and-effect relationship between violence shown in media and aggression in real life (Strasburger and Donnerstein, 1999). Another review of studies clearly demonstrated that “violent imagery has short-term effects on arousal, thoughts, and emotions, increasing the likelihood of aggressive or fearful behaviour.” It also noted a strong influence of portrayal of violence in media on those who have a predisposition for aggressive behaviour because of personality or environmental factors (Browne and Hamilton-Giachritsis, 2005).

Television and cinema also influence youth's ideas of fashion and their choices of clothing and accessories. In a survey study examining the clothing choice of 478 adolescents studying in 6th, 9th and 12th grade in two mid-western schools in US found that black adolescents are more likely to be influenced by media than by family and friends. Further, it observed that media is twice as much influential on urban adolescents as compared to rural adolescents (Wilson and MacGillivray, 1998). Media has the potential to disseminate information on fashion, beauty and other related accessories, and can create positive images for youth in their social development (Schwartz, 2004).

How Hindi Cinema and Television Propagating Caste Stereotypes by insinuating Surnames of Characters?

As we have already discussed how television and cinema influence our thinking and behaviour in a subtle way; and how ‘Surnames’ are used to infer caste identities and related stereotypes; the current study tries to explore a new question. Do Hindi cinema and television serials propagate caste stereotypes through surnames of their characters?

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METHOD:

Sample:

The content for analysis was selected from both the mediums: Television Serials and Hindi Cinema. For television serials, four most popular T.V. channels were selected i.e. Star Plus, Colors, Sony, Zee TV. Reality Shows and Historical and biographical serials were excluded from the content as they are not fictional. All the serials currently (December 3, 2015) telecasted on Star Plus, Sony, Colors and Zee tv are selected for analysis. Since Star Plus is the most popular TV channel for tv sops, its previous popular sops are also included in the data. Total 45 serials and three leading characters' surnames from each were selected for analysis.

For Hindi cinema, all the movies released in 2013 and 2014 were selected for analysis. The list of movies was selected from Internet Movie Database (IMDb). Total 42 movies from 2013 and 64 movies from 2014 were selected for surname analysis. (Appendix 1)

Measures:

Three main characters' surnames from television Hindi serials and movies were analysed to decipher whether they represent upper/forward caste, other backward caste, Muslim, SC/ST or 'no caste affiliation'. 'No caste affiliation' represents those names which do not carry any surname or using generic surnames (generic names are those which does not have any caste affiliation such as Anand). To determine the caste affiliation of a particular surname, centre's list of SC/ST and OBC as well as the plot of the story is used. The plot of the story is analysed from two sources: Wikipedia page of the sops/films and website of the channel.

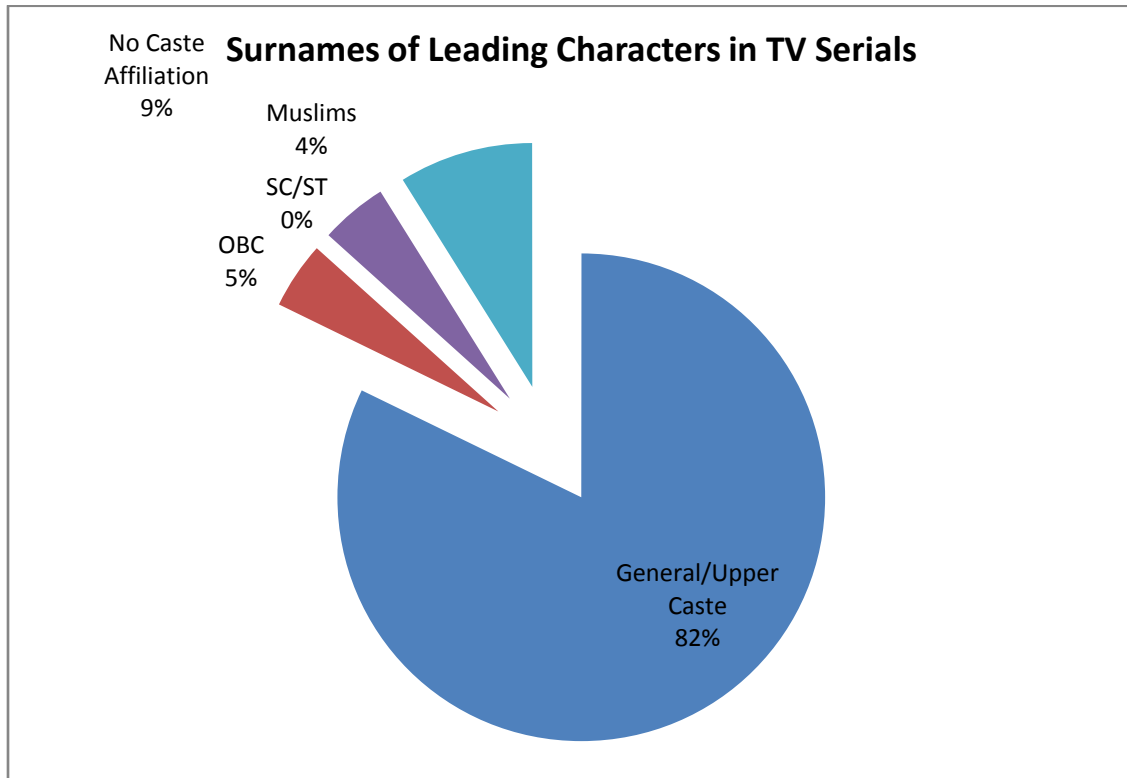
RESULT AND DISCUSSION:

Out of 135 leading characters selected from 45 TV serials, 111 characters (82%) carried a surname belonging to upper caste/general category, 6 characters (5%) carried a surname belonging to Other Backward Classes (OBC), 6 characters (4%) carried a surname belonging to Muslim and 12 characters (9%) carried no surnames.

Hindi Serials				Total Serials	Total Characters Analysed	Caste/Category wise surnames				
Star Plus	Zee TV	Sony TV	Colors			General/U pper Caste	Other Backward Caste	SC/ST	Muslim	No Surname Used/No Caste Affiliation
25	11	2	7	45	135	111	6	0	6	12

Table-1

Do Hindi Cinema & Television Serials Propagate Caste Stereotypes through Surnames of Characters: A Content Analysis



Graph-1

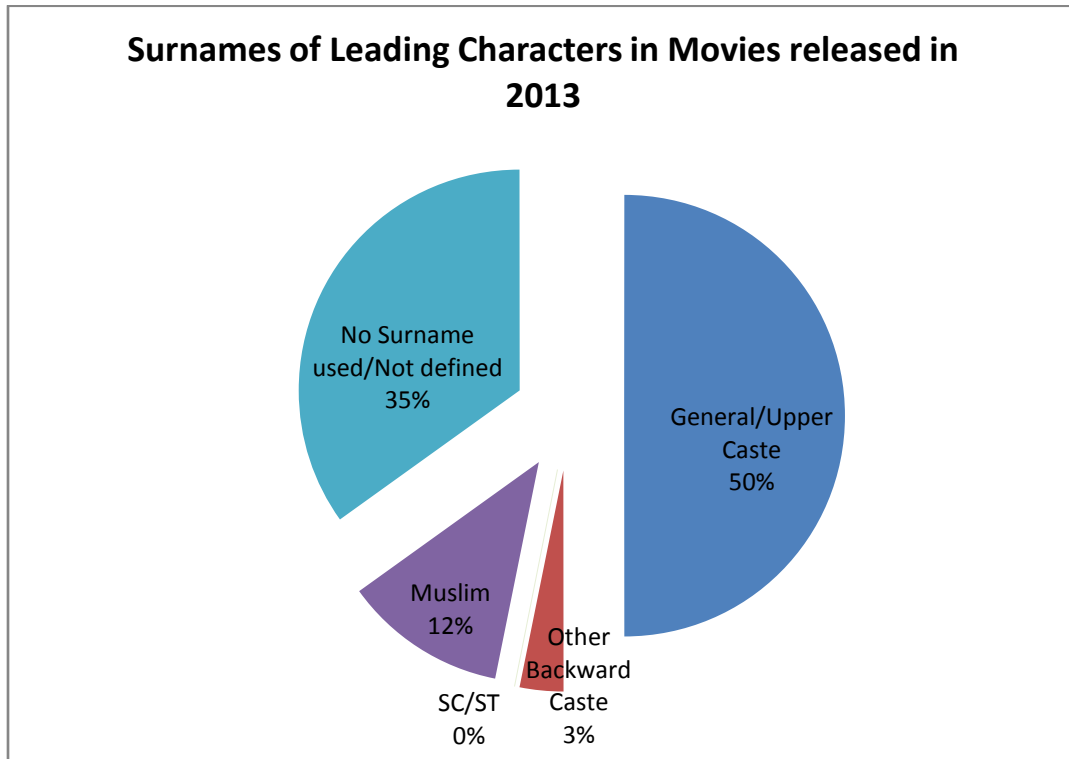
Out of 42 movies from 2013 and their 126 leading characters' surnames, 63 characters (50%) carried a surname belonging to General/upper caste, 4 characters (3%) carried a surname belonging to Other Backward Class (OBC), 15 characters (12%) carried a surname belonging to Muslim and 44 characters(35%) carried no surnames.

From 64 movies of 2014, 98 leading characters (51%) carried surname belonging to General/Upper caste, 2 characters (1%) carried surname belonging to Other Backward Classes(OBC), 21 characters (11%) carried surname belonging to Muslims and 71 characters (37%) did not carried any surname.

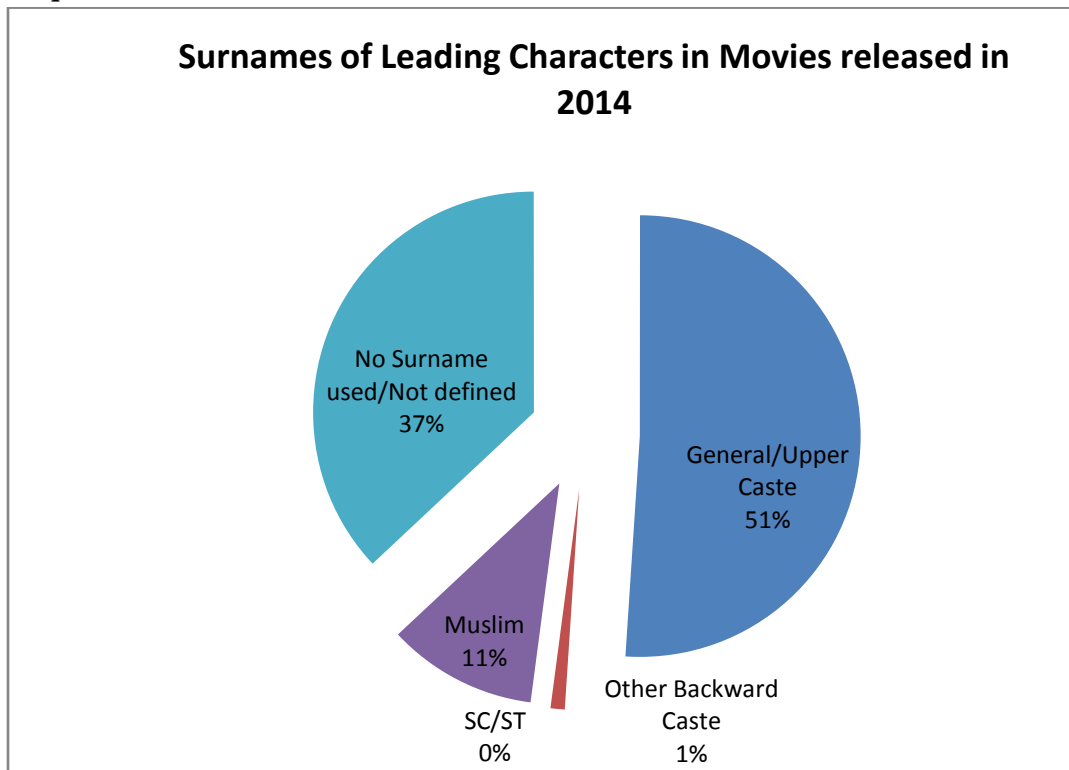
Year	Total Films	Total Characters	Caste/Category wise surnames				
			General/Upper Caste	Other Backward Caste	SC/ST	Muslim	No Surname used/Not defined
2013	42	126	63	4	0	15	44
2014	64	192	98	2	0	21	71

Table-2

**Do Hindi Cinema & Television Serials Propagate Caste Stereotypes through Surnames of Characters:
A Content Analysis**



Graph-2



Graph-3

Do Hindi Cinema & Television Serials Propagate Caste Stereotypes through Surnames of Characters: A Content Analysis

Looking at the data, it is clearly evident that surnames denoting forward caste affiliation are very popular among the story writers in Hindi Cinema/Serials. In Hindi television serials, this trend is very obvious: 82% characters carry a surname belonging to Forward caste. However, in movies it is close to 50% of all leading characters.

Surnames affiliated to Other Backward Castes are very few (5% in tv serials and between 1% to 3% in movies.) keeping in mind that OBC are more than 1/3rd of population of India. Not a single Surnames affiliated to SC/ST was found either in tv serials or movies. This is intriguing as SC/ST population is close to 20% of the country. In a fictional story where the author has the complete freedom to choose the surnames of its characters; why is there so much attachment with upper/forward caste surnames?

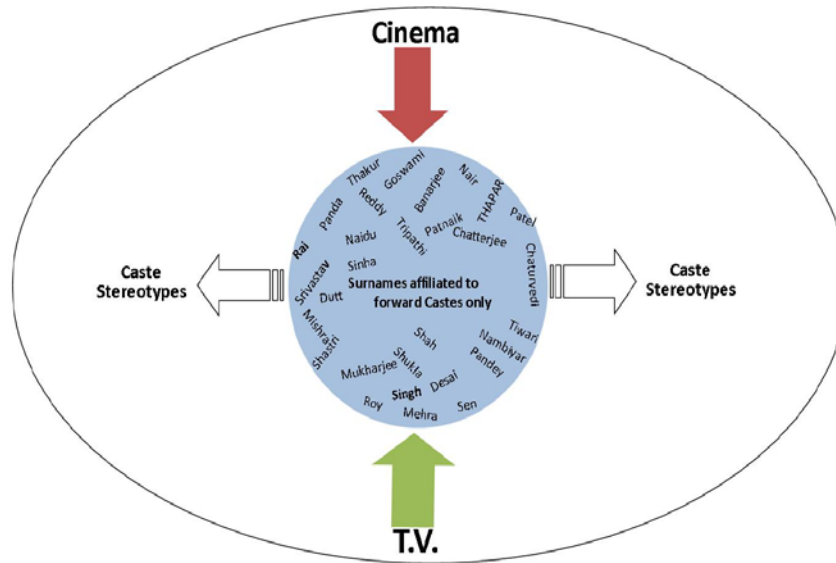
There could be various explanations to this anomaly. First; it shows the biased approach of writers at tv and cinema. Indian society still have strong notions of caste stereotypes, that is why a Bajrangi Bhaijaan- a devotee of Lord Hanuman in the movie Bajrangi Bhaijaan- has to be Pawan Kumar Chaturvedi and not Pawan Kumar Balmiki or Pawan Kumar Paswan. A business family in a tv serials has to have a character with surnames like Singhania, Mehra, Arora (All forward caste surnames). Even a simple girl from a rural background has to be Arora/Mehra (Swaragini-Appendix 1). A research study was conducted by Gopal Sharan Sinha and Ramesh Chandra Sinha from Patna University on Caste Stereotypes in 1967. The researchers selected 200 students from Patna University through random sampling and administered a checklist containing 100 characteristics and a device to measure the preference for association to explore the stereotypes of 10 important castes in Bihar. The results showed a strong rho-coefficient correlation of 0.94 between caste stereotypes and preference of association.

Another argument supporting this overwhelming preference for upper/forward castes surnames is that cinema and television are the reflection of what's happening in society. Since, even in modern India, caste stereotypes are prevalent and widely implicitly /explicitly practised, the data of the current study should not be a surprise (Srinivasan, M., Dunham, Y., Hicks, C. and Barner, D., 2015).

Surnames with no caste affiliation consists of 9% characters in tv serials while in cinema, it is around 35%. One possible explanation of this difference is that tv and cinema are different platforms in terms of their appeal and quality of manpower available to them. Cinema is a more creative, versatile and open platform where story writers, directors and producers try to serve unique products of entertainments for viewers while tv serials are based on concepts that are selling at the moment. Also, quality and experience of people working in tv serials are not as comprehensive as that of people working in cinema.

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Television and Cinema influence our cognition in a subliminal way even if we know that the story and characters are fictional. A message is called subliminal if it influences our cognition and thinking without our conscious awareness. Subliminal messages are commonly used in advertising where consumers are primed to purchase a particular product. In India, where caste affiliated surnames are used for social transactions, television serials and Hindi movies, even if they are fictional in nature, showing leading characters with upper castes surnames have the potential to propagate caste stereotypes.



Fictional Characters in TV serials and Cinema having surnames affiliated to Forward Castes only would propagate Caste Stereotypes in society.

Caste stereotypes can be very damaging for individuals belonging to low caste or Dalits. A recent study, conducted by UC Burkley and published in Developmental Science, looks specifically at attitudes in India to Caste system suggests that “children and adults who were more influenced by caste were also more likely to believe that their own natural aptitude, academic success, and personality traits were fixed or set in stone.”(Srinivasan,2015). These attitudes need to be broken and Television and Cinema can play an effective role in breaking these attitudes and caste stereotypes. However, the current content analysis of television serials and cinema, instead of breaking those stereotypes, seem to be strengthening caste based stereotypes through surnames.

The Way Ahead:

Television is a very strong medium where almost all of us spend a few hours every day. One can imagine how strongly it propagates caste stereotypes among the masses through character's surname. Should we remove all the surnames from characters' name? Or should we keep surnames but make sure that all surnames from all social groups are represented in T.V. serials and movies? Or should we use generic surnames which denote no caste affiliation? During 1960s

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and 70s a revolution started in Tamilnadu to forsake the caste affiliated surnames. The dropping of the caste tags of Mudaliar, Nadar, Gounder, Thevar, Iyer, Pillai, Vanniyaretc., in the last few decades is a great social change that needs to be acknowledged and followed in all parts of the country(Ramados,2010). Having a caste free society is in the best interest of all. However, the way to achieve this goal could be many and there would be differences of opinions too. What we do in real life to address this complex issue should be debated among policy makers, however, in reel life, Broadcasting Content Complaints Council(BCCC) a self-regulatory body established by broadcasters, should take appropriate measures to address this caste stereotyping through characters' surnames. Also, Central Board of Film Certification (CBFC), a statutory body under Ministry of Information and Broadcasting should take appropriate measures to address the issue.

CONCLUSION:

The content analysis of surnames of leading characters of TV serials and cinema clearly shows that our story writers are biased in using surnames for their characters. Since surnames carries a lot of social insinuations, stereotypes and prejudices; projecting surnames of only forward castes in these programmes would propagate caste stereotypes among the viewers. Hence, using generic surnames or no surnames or proper representation of surnames of all castes should be used by story/script writers in serials and movies. Also, CBFC should also take this issue seriously and establish mechanism to deal with this caste bias with the help of character's surnames.

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APPENDIX 1

The data about current television serials are taken from the websites of all TV channels including STAR PLUS, ZEE TV, COLORS and SONY. Total 45 tv serials are selected for content analysis (Sony-2, Star Plus-25, Colors-7, Zee TV-11). All the serials currently (December 3, 2015) telecasted on Star Plus, Sony, Colors and Zee tv are selected for analysis. Since Star Plus is the most popular TV channel for tv sops, its previous popular sops are also included in the data.

To determine the caste affiliation of a particular surname, state/centre's list of SC/ST and OBC as well as the plot of the story is used. The plot of the story is analysed from two sources: Wikipedia page of the sops and website of the channel.

Caste affiliation is categorised in four categories.

- 1- General: Includes surnames affiliated to upper/forward castes
- 2- OBC: Includes surnames affiliated to Other Backward Castes
- 3- Muslim: Includes surnames affiliated to Muslims
- 4- SC/ST: Includes surnames affiliated to Dalits (SC/ST)
- 5- No caste affiliation: No surname used or generic surnames used.

T.V. Serials

Channel	S.L.	Name of Serial	Main Character's First Name	Surname	Caste Affiliation
Sony	1	Parvarrish – Kuchh Khattee Kuchh Meethi	Sweety Kaur Lakvinder Singh	Ahluwalia	General
			Pinky Jeet	Ahuja	General
			Rajesh Singh	Khanna	General
Sony	2	Pyaar Ko Ho Jaane Do	Rizwan Ahmed	Khan	Muslim
			Preet Ishaan	Hooda	General
			Neeti	Khurana	General
Star Plus	1	Ye Hai Mohabbatein	Raman	Bhalla	General
			Shagun	Arora	General
			Ruhi Raman Kumar	Bhalla	General

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Star Plus	2	Iss Pyaar Ko Kya Naam Doon?	KhushiKumari	Gupta	OBC
			Arnav Singh	Raizada	General
			Anjali	Raizada	General
Star Plus	3	Diya Aur Baati Hum	Sandhya Sooraj	Rathi	General
			SoorajArun	Rathi	General
			Zakir	Siddiqui	Muslim
Star Plus	4	Yeh Rishta Kya Kehlata Hai	AksharaNaitik	Singhania	General
			Naitik Raj Shekhar	Singhania	General
			Tara	Shekhawat	General
Star Plus	5	Sumit Sambhal Lega	Sumit	Walia	General
			Maya	Walia	General
			Alia	Walia	General
Star Plus	6	Phir Bhi Na Maane...Badtameez Dil	Abeer	Malhotra	General
			Meher	Purohit	General
			Nissar	Malik	Muslim
Star Plus	7	Saath Nibhaana Saathiya	Gopi	Modi	OBC
			Meera	Suryayanshi	General
			Paridhi	Modi	OBC
Star Plus	8	Mere Angne Mein	Shanti Devi	Shrivastav	General
			Sarla	Aggarwal	General
			Riya Shivam	Shrivastav	General
Star Plus	9	Tere Sheher Mein	Amaya	Mathur	General
			Sneha	Mathur	General
			Ramashrey	Gupta	OBC
Star Plus	10	Suhani Si Ek Ladki	SuhaniYuvraj	Birla	General
			Soumya Krishna	Mishra	General
			Krishna	Mishra	General
Star Plus	11	EkHazaaron Mein Meri Behna Hai	JeevikaViren Singh	Vadhera	General
			ManviVirat Singh	Vadhera	General
			Viren Singh	Vadhera	General
Star Plus	12	KuchToh Hai Tere Mere Darmiyaan	Madhavan	Venkat	General
			KoyalMadhavan	Venkat	General
			Vidya	Venkat	General
Star Plus	13	Saraswatichandra	SaraswatichandraLaxmi nandan	Vyas	General
			KumudSundariSaraswati chandra	Vyas	General
			PramadDhan	Dharmadhikari	General

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Star Plus	14	Dosti... Yaariyan... Manmarziyan	Radhika	Mishra	General
			Samaira	Khanna	General
			Arjun	Mehra	General
Star Plus	15	Tu Mera Hero	Ashish	Agarwal	General
			Panchi	Agarwal	General
			Govindnarayan	Agarwal	General
Star Plus	16	Pyaar Ka Dard Hai Meetha Meetha Pyaara Pyaara	Pankhuri Aditya	Kumar	OBC
			Aditya Harish	Kumar	OBC
			AnujPurushottam	Deewan	General
Star Plus	17	Navya..Naye Dhadkan Naye Sawaal	Deepak	Mishra	General
			Neeta	Mishra	General
			NavyaAnant	Bajpai	General
Star Plus	18	Veera	VeeraBaldev	Singh	General
			RanvijaySampoorn	Singh	General
			BaldevBalwant	Singh	General
Star Plus	19	Ek Hasina Thi	Durga	Thakur	General
			Nitya	Mitra	General
			Dev Arnab	Goenka	General
Star Plus	20	Mohi – Ek Khwab Ke Khilne Ki Kahani	Mohi		No Caste Affiliation
			Ayush		No Caste Affiliation
			Anusha		No Caste Affiliation
Star Plus	21	Mohi – Ek Khwab Ke Khilne Ki Kahani	Pratigya Krishna	Singh	General
			Thakur Krishna Sajjan	Singh	General
			KomalKartik	Saxena	General
Star Plus	22	Sasural Genda Phool	Suhana	Kashyap	OBC
			Ishaan	Kashyap	OBC
			Kamal Kishore	Bajpai	General
Star Plus	23	Nisha Aur Uske Cousins	NishaKabir	Kumar	
			Viraj Singh	Rathore	General
			Suketu Ramesh	Gangwal	General
Star Plus	24	Kasautii Zindagii Kay	Prerna	Sharma	General
			Anurag	Basu	General
			Rishabh	Bajaj	General
Star Plus	25	Kyunki Saas Bhi Kabhi Bahu Thi	Govardhan	Virani	General
			AmbaGovardhan	Virani	General
			Tulsi	Virani	General

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Colors	1	Swaragini	SwaraSanskaar	Maheshwari	General
			Sanskaar Ram Prasad	Maheshwari	General
			Sharmishtha	Gadodia	General
Colors	2	Sasural Simar Ka	Siddhant	Bharadwaj	General
			SiddhantRajendra	Bharadwaj	General
			SimarPrem	Bharadwaj	General
Colors	3	Meri Aashiqui Tum Se Hi	Milan Kailash	Vaghela	General
			IshaniRanveer	Vaghela	General
			Shikhar Raj Narayan	Mehra	General
			DevarshMitesh	Parekh	General
Colors	4	Udann	Kamal Narayan	Rajvanshi	General
			Chakor		No Caste Affiliation
			Chunni		No Caste Affiliation
Colors	5	Thapki Pyar Ki	ThapkiBihaan	Pandey	General
			BihaanBalvinder	Pandey	General
			Shubh	Chaturvedi	General
Colors	6	Ishq Ka Rang Safed	Viplav	Tripathi	General
			Dashrath	Tripathi	General
			Dhaani		No Caste Affiliation
Colors	7	Naagin	Ritik	Raheja	General
			Yamini	Raheja	General
			Tanvi	Mathur	General
Zee T.V.	1	Kumkum Bhagya	Abhishek Prem	Mehra	General
			Pragya	Arora	General
			Daljeet	Mehra	General
Zee T.V.	2	Jamai Raja	Siddharth	Khurana	General
			Durga Devi	Patel	General
			RoshniSiddharth	Khurana	General
Zee T.V.	3	Kaala Teeka	Vishwaveer	Jha	General
			Gauri	Jha	General
			JethiMaa		No Caste Affiliation
Zee T.V.	4	Satrangi Sasural	Vihaan	Vatsal	General
			Kaira Vihaan	Vatsal	General
			Neelima	Tripathi	General
Zee T.V.	5	Ek Tha Raja Ek Thi Rani	RanaIndravadan	Singh Deo	General
			Rani Gayatri	Devi	General
			Rani Sulakshana		General

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Zee T.V.	6	Sarojini	Sarojini	Singh	General
			Somendra	Singh	General
			Dushyant	Singh	General
Zee T.V.	7	Tashan-e-Ishque	Twinkle Kunj	Sarna	General
			Kunj Manohar	Sarna	General
			Yuvraj	Luthra	General
Zee T.V.	8	Ye Vaada Raha	Shrikant		No Caste Affiliation
			Survi		No Caste Affiliation
			Kartik		No Caste Affiliation
Zee T.V.	9	Lajwanti	Sunderlal	Bharadwaj	General
			Lajwanti	Bharadwaj	General
			Jamal		Muslim
Zee T.V.	10	Neeli Chatriwaale	Bhagwan Das	Chaubey	General
			Gowardhan	Dubey	General
			Mahadev	Singh	General
Zee T.V.	11	Qubool Hai	Mahira	Akhtar	Muslim
			Armaan Raza	Sheikh	Muslim
			NayiSanam Nasir	Khan	Muslim

Movies Released in 2013

S.I	Movie	Lead Character Name	Surname	Caste Affiliation
1	Once Upon a Time in Mumbaai	Sultan	Mirza	Muslim
		Shoaib	Khan	Muslim
		Rehana	Shergill	General
2	Chashme Baddoor	Siddharth	Kashyap	OBC
		Omkar	Sharma	General
		Jai	Lakhanpal	No Caste Affiliation
3	ShuddhDesi Romance	Raghu Ram		No Caste Affiliation
		Gayatri		No Caste Affiliation
		Tara		No Caste Affiliation
4	Bullett Raja	Raja	Mishra	General
		Rudra	Tripathi	General
		Ram Babu	Shukla	General
5	Murder 3	Vikram[No Caste Affiliation
		Roshni		No Caste Affiliation
		Nisha		No Caste Affiliation

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6	Jolly LLB	Jagdish	Tyagi	General
		Tejinder	Rajpal	No Caste Affiliation
		Sunderlal	Tripathi	General
7	Phata Poster Nikhla Hero	Vishwas	Rao	OBC
		Kajal		No Caste Affiliation
		Savitri		No Caste Affiliation
8	Satyagraha	Dwarka	Anand	No Caste Affiliation
		Manav	Raghvendra	No Caste Affiliation
		Yasmin	Ahmed	Muslim
9	NautankiSaala	Ram	Parmar	General
		Nandini	Patel	General
		Mandar	Lele	No Caste Affiliation
10	R. Rajkumar	Romeo	Rajkumar	No Caste Affiliation
		Chanda		No Caste Affiliation
		Shivraj	Gurjar	General
11	Kai PO Che	Ishaan	Bhatt	General
		Omkar	Shastri	General
		Govind	Patel	General
12	Fukrey	Vikas	Gulaati	General
		Zafar		Muslim
		Lali		No Caste Affiliation
13	Inkaar	Rahul	Verma	OBC
		Maya	Luthra	General
		Mrs. Kamdhar	Kamdhar	General
14	Matru Ki Bijlee Ka Mandola	Harphool Singh	Mandola	No Caste Affiliation
		Hukum Singh	Matru	No Caste Affiliation
		Bijlee	Mandola	No Caste Affiliation
15	Table No. 21	Abdul Razaq	Khan	Muslim
		Vivaan	Agasthi	General
		Siya	Agasthi	General
16	Zila Ghaziabad	Thakur Pritam	Singh	General
		MahendraFauji	Baisla	General
		SatbirBaisla	Gurjar	General
17	Raanjhanaa	Kundan	Shankar	General
		Zoya	Haider	Muslim
		Jasjeet Singh	Shergill	General
18	Boss	Surya		No Caste Affiliation
		Satyakant	Shastri	General
		Ayushman	Thakur	General
19	YehJawaani Hai Deewani	Naina	Talwar	General
		Kabir	Thapar	General

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		Aditi	Mehra	General
		Sahir	Khan	Muslim
		Aaliya		No Caste Affiliation
20	Dhoom 3	Jai	Dixit	General
		Meenalochani	Azhagusundaram	No Caste Affiliation
21	Chennai Express	Rahul	Mithaiwala	No Caste Affiliation
		Durgeshwara	Azhagusundaram	No Caste Affiliation
		Rahul	Jaykar	General
22	Aashiqui 2	AarohiKeshav	Shirke	General
		Vivek		No Caste Affiliation
		Ajay "Aju"	Singh	General
23	Special 26	Waseem	Khan	Muslim
		P. K.	Sharma	General
		Rohit	Mehra	General
24	Krrish 3	Kaal		No Caste Affiliation
		Priya	Mehra	General
		Saajan	Fernandes	General
25	The Lunch Box	Shaikh		Muslim
		Illa		No Caste Affiliation
		Amar	Saxena	General
26	Grand Masti	Meet	Mehta	General
		Prem	Chawla	General
		RudraPratap	Singh	General
27	D Day	Zoya	Rehman	Muslim
		Wali	Khan	Muslim
		Wisam Ahmad	Kashmiri	Muslim
28	Vishwaroopam	Omar	Qureshi	Muslim
		Nirupama	Vishwanath	General
29		Major Vikram	Singh	General
	Madras Café	Jaya	Sahni	General
		Robin	Dutt	General
30		Ram		No Caste Affiliation
	Ramaiya Vastavaiya	Sona		No Caste Affiliation
		Raghuveer		No Caste Affiliation
31		Varun	Srivastav	General
	Lootera	Pakhi Roy	Chaudhari	General
		A.K.	Bajpai	General
32		Sameer	Khullar	General
	Mere Dad Ki Maruti	Jasleen		No Caste Affiliation
		Tej	Khullar	General

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33	Saheb Biwi Aur Gangster Returns	Aditya Pratap	Singh	General
		IndrajeetPratap	Singh	General
		Madhavi	Devi	No Caste Affiliation
34	Ghanchakkar	Sanjay	Atre	General
		Uttam	Nagpal	General
		Neetu	Atre	General
35	Akaash Vani	Akaash		No Caste Affiliation
		Vani		No Caste Affiliation
		Ravi		No Caste Affiliation
36	Ek Thi Daayan	BejoyCharan	Mathur	General
		Tamara		No Caste Affiliation
		Lisa	Dutt	General
37	Himmatwala	Ravi		No Caste Affiliation
		Rekha		No Caste Affiliation
		Sher	Singh	General
38	Shree	Shree		No Caste Affiliation
		Sonu		No Caste Affiliation
		Tilak		No Caste Affiliation
39	Rangrezz	Rishi	Deshpande	General
		Megha	Joshi	General
		Brijbihari	Pandey	General
40	Enemmy	Yugandhar	Vishnoye	General
		Eklavya	Karmarkar	OBC
		Naeem	Shaikh	Muslim
41	Singh Sahab the Great	Shikha	Chaturvedi	General
		Bhoodev		No Caste Affiliation
		Saranjeet	Talwar	General
42	ABCD: Any Body Can Dance	Vishnu		No Caste Affiliation
		Jahangir	Khan	Muslim
		Gopi		No Caste Affiliation

Movies Released in 2014

S.I	Movie	Lead Character Name	Surname	Caste Affiliation
1	Gang of Ghosts	Raju	Writer	No Caste Affiliation
		Director		No Caste Affiliation
		Tania		No Caste Affiliation

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2	Queen	Rani	Mehra	General
		Vijay		No Caste Affiliation
		Vijaylakshmi		No Caste Affiliation
3	Roy	Roy		General
		Kabir	Grewal	General
		Tia	Desai	General
4	Creature	Ahana	Dutt	General
		Karan	Malhotra	General
		Professor sadana	Sadana	General
5	Action Jackson	Vishi		No Caste Affiliation
		Khushi		No Caste Affiliation
		Anusha		No Caste Affiliation
6	Happy Ending	Yudi	Jaitely	General
		Aanchal	Reddy	General
		Armaan		No Caste Affiliation
7	Ugly	Rahul	Kapoor	General
		Shoumik	Bose	General
		Chaitanya	Mishra	General
8	Bhoothnath Returns	Khailash	Nath	No Caste Affiliation
		Bindia	Pathak	General
		Bhau	Sahib	No Caste Affiliation
9	Finding Fanny	Angelina		No Caste Affiliation
		Savio	Gama	No Caste Affiliation
		Ferdinand		No Caste Affiliation
10	Raja Natwarlal	Raja		No Caste Affiliation
		Yogi		No Caste Affiliation
		Varda	Yadav	OBC
11	Kya Dilli Kya Lahore	Rehmat	Ali	Muslim
		Samarth Pratap	Shastri	General
		Barfi	Singh	General
12	Ankhon Dekhi	Bauji		No Caste Affiliation
		Rishi Chacha		No Caste Affiliation
		Sharma ji	Sharma ji	General
13	Total Siyapaa	Aman		No Caste Affiliation
		Rajinder	Singh	General
		Asha		No Caste Affiliation
14	The Shaukeens	Lali		No Caste Affiliation
		KD		No Caste Affiliation
		Pinki		No Caste Affiliation
15	Hawaa Hawaai	Arjun Harishchand	Waghmare	General
		Aniket	Bhargava	General

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		Aniruddha	Bhargava	General
16	Gulab Gang	Rajjo		No Caste Affiliation
		Sumitra	Devi	No Caste Affiliation
		Kajri		No Caste Affiliation
17	Filmistaan	Sunny		No Caste Affiliation
		Aftab		Muslim
		Mehmood		Muslim
18	Miss Lovely	Sonu		No Caste Affiliation
		Pinki		No Caste Affiliation
		Vicky		No Caste Affiliation
19	Ungli	Nikhil	Abhyankar	No Caste Affiliation
		Abhay		No Caste Affiliation
		Maya		No Caste Affiliation
20	Bewakoofiyaan	Mohit	Chadha	General
		Mayera	Sehgal	General
		VK	Sehgal	General
21	Youngstaar	Abhimanyu	Kaul	General
		Anwita	Chauhan	General
		Shubhdeep	Ganguly	General
22	Revolver Rani	Alka	Singh	General
		Rohan	Kapoor	General
		Udaybhan	Tomar	General
23	Ya Rub	Ran Vijay	Singh	General
		Amreen		Muslim
		Ikram		Muslim
24	Heartless	Aditya	Singh	General
		Shruti	Tandon	General
		Abhinav	velidi	General
25	Dishkiyaoon	Viki	Kartoos	No Caste Affiliation
		Meera		No Caste Affiliation
		Nawab	Khan	Muslim
26	Samrat & Co.	Samrat	Tilakdhari	General
		Dimpy	Singh	General
		Chakradhar	Pandey	General
27	Darr @ the Mall	Vishnu	Sharma	General
		Ahana	Manchanda	General
		Alok	Manchanda	General
28	Kaanchi	Kaanchi		No Caste Affiliation
		Binda		No Caste Affiliation
		Shyam	Kakra	General

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29	Ekkees Toppon Ki Salaami	Purushotam Narayan	Joshi	General
		Taanya	Srivastav	General
		Subhash	Joshi	General
30	Mastram	Rajaram		No Caste Affiliation
		Chacha		No Caste Affiliation
		Renu		No Caste Affiliation
31	Kuku Mathur Ki Jhand Ho Gayi	Kuku	Mathur	General
		Mitali		No Caste Affiliation
		Rosi		No Caste Affiliation
32	Dekh Tamasha Dekh	Muthaseth		No Caste Affiliation
		Vishwasrao		No Caste Affiliation
		Fatima		Muslim
33	Kill Dil	Guru		No Caste Affiliation
		Dev		No Caste Affiliation
		Tutu		No Caste Affiliation
34	Fugly	R.S.	Chautala	General
		Dev		No Caste Affiliation
		Devi		No Caste Affiliation
35	Hate Story 2	Mandar	Mhatre	General
		Sonika	Prasad	No Caste Affiliation
		Akshay	Bedi	General
36	One by two	Amit	Sharma	General
		Samara	patel	General
		Bunty		No Caste Affiliation
37	O Teri	Prantabh	Pratab	No Caste Affiliation
		AnandIshwaramDevdutt	Subramanium	General
		Monsoon		No Caste Affiliation
38	The Xpose	Ravi	Kumar	No Caste Affiliation
		Chandini	Raza	Muslim
		Kenny	Damania	General
39	Kick	Devi Lal	Singh	General
		Shaina	Mehra	General
		Himanshu	Tyagi	General
40	PK	Jagat Janani	Sahni	General
		Cherry	Bajwa	General
		Sarfaraz	Yousaf	General
41	Happy New Year	Mohini	Joshi	General
		Chandramohan Manohar	Sharma	General
		Vicky	Grover	General

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42	Bang Bang	Jai	Nanda	General
		Harleen	Sahani	General
		Omar	Zafar	Muslim
43	Gunday	Bikram	Bose	General
		Bala	Bhattacharya	General
		Nandita	Sengupta	General
44	Jai Ho	Jai	Agnihotri	General
		Dashrat	Singh	General
		Geeta	Agnihotri	General
45	Ek Villain	Rakesh	Mahadkar	General
		Guru Pratap	Singh	General
		Aisha	Verma	OBC
46	Singham	Bajirao	Singham	General
		Avni	Kamat	General
		Satyaraj Chandra	Baba	No Caste Affiliation
47	Dedh Ishqiya	Begum	Para	Muslim
		Razzaakh	Hussain	Muslim
		Iftekhar		Muslim
48	2 States	Krish	Malhotra	General
		Ananya	Swaminathan	General
		Kavita	Malhotra	General
49	Hasee to Phasee	Nikhil	Bharadwaj	General
		Dr.Meeta	Solanki	General
		Karishma	Solanki	General
50	Highway	Veera	Tripathi	General
		Mahabir	Bhati	General
		M. K.	Tripathi	General
51	Yaariyan	Lakshya		No Caste Affiliation
		Saloni		No Caste Affiliation
		Jiya		No Caste Affiliation
52	Haider	Haider		Muslim
		Arshia	Lone	Muslim
		Ghazala	Meer	Muslim
53	Mardaani	ShivaniShivaji	Roy	General
		Karan	Rastogi	General
		Sunny	Katyal	General
54	Raagini MMS 2	Sunny	Leone	No Caste Affiliation
		Satya	Kumar	No Caste Affiliation
		Rocks		No Caste Affiliation
55	Heropanti	Bablu		No Caste Affiliation
		Dimpi		No Caste Affiliation

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		Chaudhary		No Caste Affiliation
56	Bobby Jasoos	Bilkis	Ahmed	Muslim
		Tasawur		Muslim
		Naeem		Muslim
57	Shadi Ke Side Effects	Siddharth	Roy	General
		Trisha	Roy	General
		Ranveer		No Caste Affiliation
58	Mai Tera Hero	Srinath	Prasad	General
		Angad	Negi	General
		Ayesha	Saigal	General
59	Humpty Sharma Ki Dulhaniya	Rakesh 'Humpty'	Sharma	General
		KavyaPratap	Singh	General
		Angad		No Caste Affiliation
60	Daawat-e-Ishq	Gulrez		Muslim
		Tariq "Taru"	Haidar	Muslim
		Abdul	Qadir	Muslim
61	Entertainment	Akhil	Lokhande	General
		Saakshi		No Caste Affiliation
		Karan		No Caste Affiliation
62	Holiday	Virat		No Caste Affiliation
		Saiba	Thapar	General
		Mukund	Deshmukh	General
63	Khoobsurat	Dr Mrinalini "Milli"	Chakravarty	General
		Vikram Singh	Rathore	General
		Manju	Chakravarty	General
64	City Lights	Deepak	Singh	General
		Vishnu		No Caste Affiliation
		Sudha		No Caste Affiliation

Effect of Organizational Climate on Psychological Well Being:

A Study of Vedanta Ltd

Ms. Sonam Gondlekar^{1*}, Dr. Manoj S. Kamat²

ABSTRACT

The present study explores the link between organizational climate and psychological well being. It seeks to examine the differences in these two constructs based on varied demographic variables. Organizational Climate Inventory (OCI) developed by, Chattopadhyay, Agarwal (2006) has been used to assess employee's perceptions of organizational climate. Psychological Well Being is being measured with the help of Psychological Well Being Scale developed by Ryff (1995). Sample for the study comprised of 180 employees from Vedanta Ltd. The results indicate that there is a significant positive correlation between organizational climate and psychological well being. There is no significant difference observed in organizational climate and psychological well being as a result of demographic variables. The study also discusses theoretical and practical implications for the managers.

Keywords: *Organizational climate, Psychological well being*

It is universally believed that "Happy Employees are Productive Employees". Happiness usually results from Physical, Mental, Spiritual and Psychological stability of a person. Keeping this in mind, organizations in today's times are introducing novel & innovative facilities to provide this balance and stability to their employees. But no matter what initiatives an organization adopts, certain aspects of an organization can have a significant impact on the Physical and Psychological Well Being of the employees. These aspects could include things like; organizational climate, organizational commitment, motivational climate, Labour-Management Relations, Work Life Balance, Employee Engagement and so on. However, in the current study, relationship between one of these factors that is Organizational Climate and Psychological Well Being is being explored.

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Conceptual & Theoretical Framework

Organizational Climate basically implies the collective perceptions of employees about varied aspects and components of the work environment. It evolves out of the experiences that people have as they deal with varied stratum of organizational realities; namely its objectives and goals, company policies and practices, work design, leadership, motivational and reward mechanisms, structure, channels of communication, work conditions, reliance on technology and so on. It provides a dynamic interface for employees in the organization in the form of psychologically meaningful and behaviourally pertinent perceptions, which impel them to think, feel and act in consistently similar ways (Schneider, 1975).

Pritchard and Karasick (1973) have defined Organizational Climate as a relatively enduring quality of an organization's internal environment distinguishing it from other organizations which – a) results from the behaviour and policies of members of the organization especially top management b) is perceived by members of the organization c) serves as a basis for integrating the situation and d) acts as a source of pressure for directing activities.

Organizational Climate is one such construct that fosters Management Professionals understanding of whether organization is a psychologically meaningful environment for its employees or not. It primarily tries to gauge employee's perceptions with respect to factors, conditions and events which occur in the organization. According to Wallace et al. (1975), organizational climate is one of the most important constructs in organizational literature. Despite the controversy surrounding organizational climate, many behavioural scientists still believe that it is the pivotal ecological factor influencing behaviour of people in organizations. Psychological Well Being is primarily concerned with people's reactions to the usual stresses of their day to day living (Bradburn, 1969; Ryff, 1995); it incorporates their "day-to-day feelings and evaluations of lives" (Lyubomirsky, Dickerhoof, 2006). According to Ryff (1995), the concept of Psychological well-being is helpful as it gives a measure of employee's perceived emotional and mental outlook towards life.

The current study is based on the conceptualization of Psychological Well Being proposed by Ryff and Keyes (1995) as it is very complex, multidimensional and comprehensive. Ryff and Keyes asserts that the construct of Psychological Well Being encompasses six dimensions that is; Self Acceptance, Positive Relations With Others, Environmental Mastery, Personal Growth, Autonomy and Purpose in Life. Their conceptualization of Psychological Well Being has been theoretically and empirically tested by professionals from the arenas of Clinical Psychology, Developmental Psychology and Mental Health. Theorists have clearly defined all the six dimensions in terms of what High and Low scores on each of the dimensions indicate.

This concept is valuable as it emphasises on positive aspects like satisfaction with life and desirable mental states. Through assessment of this concept, we can develop an understanding of psychological wellness of employees related to their personal and professional lives.

Over the years, several theorists have attempted to explore the relationship between the constructs under study. A model has been developed by Lester, Cross (2015) which shows inter linkage between three aspects of climate (Safety, Social Relationships, Connectedness) and Mental Emotional Well Being (Depression, Anxiety, Stress) in Secondary School setting. Their model explains how school climate is vital for promoting well being of students.

Bahrami, Taheri (2013) in their study developed a model to investigate relationship between organizational climate and psychological well being. Their model consists of five components of climate (Objectives Clarity, Reward Mechanism, Procedures, Role Clarity, Communication Effectiveness) and nine components of psychological well being (Somatization, Obsessive-Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, Psychotocism). This model has been tested by the researchers among hospital employees.

Both these models are very much relevant in modern times as it's a necessity on the part of the employer to provide a conducive work environment to its employees. Studies have time and again proved that climate perceptions exert significant influence on employee satisfaction as well as their performance. Organization Climate is one of those important factors which determine the well being of the employees. Present study also investigates the same constructs which have been explored in above two models but only the components and context is different.

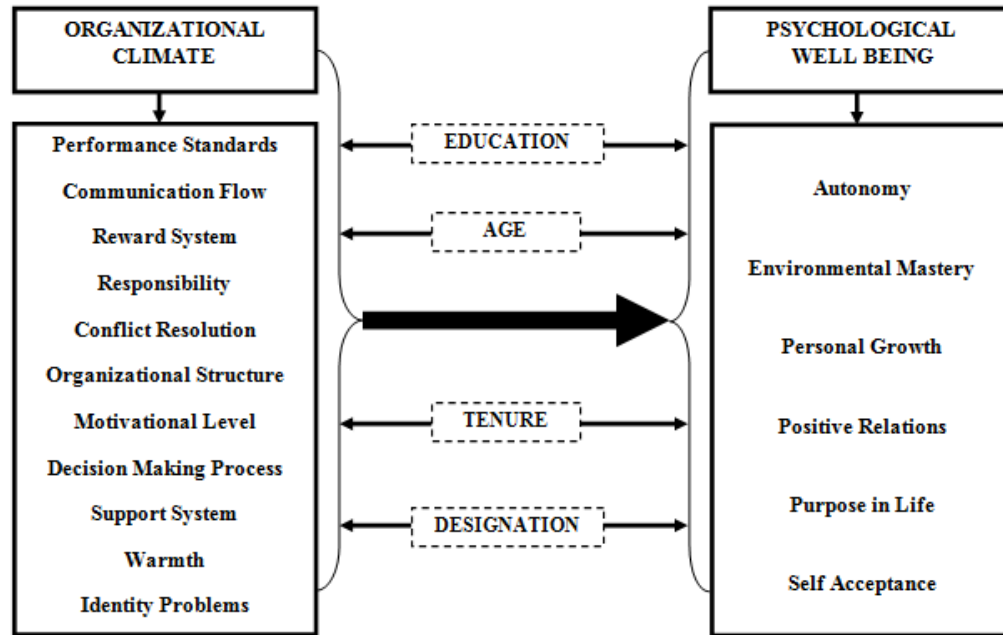
Two other studies in this area are noteworthy. A study by Karasek, Theorell (1990) divulges that certain dimensions of climate, namely; challenge, freedom, low conflict levels and autonomy play a crucial role in enhancing psychological well being of the employees. When employees are deprived of opportunities to be a part of decision making, they might experience stress, as a result of which their creativity, motivation level might go down and negative feelings like frustration, depression might escalate.

A study by Gilbreath, Benson (2004) has examined the effect of supervisory behaviour on employee wellbeing. Findings demonstrate that positive supervisory behaviour (allowing more employee control, communicating and organizing well, considering employees and their well-being) makes a statistically significant contribution to employee well-being regardless of differences in age, social support from co-workers and at home, lifestyle and stressful work/life events.

Very specifically, this study aims to examine the relationship between organizational climate and psychological well being, assess the influence of demographic variables collectively on organizational climate, psychological well being and their dimensions in the context of a notable mining company in the State of Goa (India).

Proposed Research Model

The present investigation is being undertaken to discover the relationship between OC and PWB among employees of a Mining company based in Goa. As many as 11 dimensions of OC have been chosen, whereas PWB is characterised through 6 components. The purpose of the study as illustrated below is to examine the effect of selected demographic variables like perceived job tenure, education, age and designation on OC and PWB.



RESEARCH METHODOLOGY

Sample

The sample for the present study comprises of 180 higher, middle and lower level employees belonging to different age groups. Representative sample has been chosen from various departments. Selected sample consists of employees with different job tenures and varied educational qualifications. The sample is being chosen randomly.

Tools for Data Collection

- 1. Personal Data Sheet:** This data sheet has been used to obtain information about demographic status of the participants, namely; age, gender, designation, job tenure etc.
- 2. Organizational Climate Inventory:** This scale developed by Chattopadhyay, Agarwal (2006) comprises of 70 items pertaining to organizational climate. It has a split half reliability of 0.89.
- 3. Psychological Well Being Scale:** The multidimensional Psychological Well-Being Scale with 54 items developed Ryff and Keyes (1995) is being used to gauge participants psychological well-being in the present investigation.

Tools for Statistical Analysis

In order to test the hypotheses and to facilitate the interpretation of results, data has been analyzed by applying the various statistical techniques. Both descriptive and inferential methods have been used to analyze the data. These includes mean, standard deviation, Regression, Karl Pearson's Coefficient of Correlations, and One Way ANOVA.

Variables

1. **Independent Variable:** Organizational Climate
2. **Dependent Variable:** Psychological well being
3. **Control Variables:** Age (25-35 yrs, 35-45 yrs, 45 & above), Level of employees (Higher, Middle & Lower level), Job Tenure (0-5 yrs, 5-10 yrs, 10-15 yrs, 15-20 yrs, 20 yrs & above), Education (8th-10th, 10th-12th, Graduation, Post graduation)

Hypotheses

Based on the literature and supporting theories, following hypotheses have been formulated:

1. There is a positive correlation between organizational climate and psychological well being
2. There is a significant effect of organizational climate on psychological well being
3. There exists a significant difference in organizational climate as a result of age, education, tenure and level of employees.
4. There exists a significant difference in psychological well being as a result of age, education, tenure and level of employees.

RESULTS AND DISCUSSION

Consistency and Reliability Analysis

Internal consistency and reliability, primarily calculates the consistency of results across items within a test. It gives a measure of whether varied items which intend to measure same construct, produce similar scores or not. It is usually measured by using Chronbach's alpha, which ranges somewhere between zero to one. According to Sekaran (2005), if the Cronbach's alpha is less than .6, this means that the employed instrument has got a low reliability and thereby is open for errors. If the alpha value is within .7, the instrument is considered as acceptable. Table 1 and Table 2 depicts reliability coefficient of OC and PWB Scales.

Table 1: Internal Consistency & Reliability of PWB Scale

Label	Chronbach's Alpha	ICC (2)
Autonomy	.75	.86
Environmental Mastery	.71	.82
Personal Growth	.67	.80
Positive Relations	.74	.82
Purpose in Life	.71	.81
Self Acceptance	.73	.87

Source: Calculation on the basis of Primary Data collected by the Researcher

Inter Rater Reliability is the variation that results in measurements when same instrument is taken by different individuals with same method or instruments. It could be simply considered as level of agreement among raters, which focuses on homogeneity in ratings provided by different raters. It is measured by ICC (2) and values above 0.80 are considered as acceptable. Overall, from the reliability coefficients we can infer that, as all the values are above acceptable levels, findings of this study can be generalized to overall population.

Table 2: Internal Consistency & Reliability of OC Scale

Label	Cronbach's Alpha	ICC (2)
Performance Standards	.68	.87
Communication Flow	.73	.82
Reward System	.78	.89
Responsibility	.69	.79
Conflict Resolution	.75	.82
Organizational Structure	.74	.82
Motivational Level	.71	.86
Decision Making Process	.73	.87
Support System	.77	.84
Warmth	.70	.80
Identity Problems	.65	.78

Source: Calculation on the basis of Primary Data collected by the Researcher

The data collected using the personal data sheet, Organizational climate inventory and Psychological well being scale, has been analyzed with the help of statistical tools. The results obtained are discussed below, on the basis of research objectives and hypotheses.

Ha 1: There is a positive correlation between organizational climate and psychological well being.

Correlation between Organizational climate and Psychological well being has been computed using Pearson's Product Moment Correlation method. As shown in Table 1.1, Correlation coefficient has been found to be **.41** which is **significant at 0.01 level** of significance. This signifies a positive correlation, thereby indicating that, positive climate perceptions would improve and negative climate perceptions would deteriorate the psychological well being. This finding implies that employees will become more self accepting, will pursue meaningful goals with a sense of purpose in life, establish quality ties with others, will gain autonomy in thought and action, inculcate the ability to manage complex environments to suit personal needs and values and continue to grow, only if they perceive adequacy in varied aspects of organizational climate like communication, decision making etc.

These findings are consistent with the findings by Mark, David, Dejoy, Robert (2004); Vandenberg, Hettie, Richardson, Allison, Mcgrath (2004) who have discovered that employees

perceptions of their organization affect their perception of the climate, which impacts the way people relate to their job and see their future in the organization, ultimately impacting their work adjustment, health and well-being.

Table 1.1: Correlation Between Organizational Climate & Psychological Well Being

Variables (N = 80)	Correlation Coefficient
Organizational Climate	.412**
Psychological Well Being	

*Note: ** Significant at the 0.01 level*

A further analysis into the correlation between dimensions of organizational climate and psychological well being has provided an interesting insight. Results of dimension wise analysis reveal that out of 11, 8 dimensions of organizational climate correlate positively with psychological well being. Correlation coefficients derived from correlation between each of the 8 dimensions of organizational climate (performance standards (.29), communication flow (.38), Responsibility (.29), Conflict resolution (.33), organizational structure (.33), motivational level (.32), decision making process (.39), support system (.39)) and psychological well being have been found to be significant at 1% level of significance.

These results support the hypothesis and are also consistent with the findings of study by Karasek, Theorell (1990); Ekvall, Arvonen (1991); Cashman (1987); Kinman, Jones (2004) which have also found significant influence of these dimensions on psychological well being. However, insignificant positive correlation has been found between warmth, reward system, identity problems and psychological well being.

Ha 2: There is a significant effect of organizational climate on psychological well being.

Linear Regression analysis has been performed to discover the cause and effect link between organizational climate and psychological well being. Results of this regression analysis divulge that organizational climate is a significant predictor of psychological well being. This is evident from the R square which has been discovered to be .17, which further implies that 17% variance in psychological well being is explained by organizational climate. F value of 15.921 has also been found as significant at 1% level of significance.

Table 2.1: Regression Analysis with Organizational Climate as Predictor Variable

Predictor Variable: Organizational Climate	R	R Square	F Value
	.412	.170	15.921**

*Note: **Significant at 1% Level of Significance*

Further, the researcher attempted to explore the causal relationship between dimensions of organizational climate and psychological well being. From this analysis, only one dimension has

turned out to be significant predictor of psychological well being that is Decision Making. R square of .156 denotes that 15% variance in psychological well being is contributed by decision making dimension of organizational climate.

Ha 3: Significant differences exist in Organizational climate as a result of age, level of employees, tenure and education.

Table 3.1: Comparison of OC and PWB based on Age

Variables	Age Group	Mean	SD	F Value
PWB	25-35 yrs	240.73	24.662	.599
	35-45 yrs	234.47	13.912	
	45-60 yrs	237.18	26.674	
	Total	237.25	21.556	
OC	20-30 yrs	230.50	22.219	.911
	30-45 yrs	238.72	34.466	
	45-60 yrs	242.73	38.825	
	Total	237.15	32.362	

Age and Organizational Climate

As can be seen from the Table 3.1, no significant difference has been observed across different age groups (25-35 yrs, 35-45 yrs, 45 & above) with regard to total organizational climate score. However after doing dimension wise analysis, it has been observed that employees belonging to three different age groups differ significantly with respect to perceived reward system, responsibility, motivational level and identity problems. F value for motivational level (5.91) and identity problems (5.20) has been found to be significant at 1% level of significance. Whereas, F value for reward system (3.89) and responsibility (3.92) is being found significant at 5% level of significance.

Further, through correlation analysis, negative correlation has been observed between age and satisfaction with reward system. Employees belonging to the age group (25-35) have been found to be most satisfied, whereas employees belonging to the age group (45 & above) have been found to be least satisfied with reward system. This might be probably because employees in the age range of (45 & above) expect more and better rewards than their young counterparts because of seniority, experience, & knowledge that they possess. Since rewards are performance based & not seniority or experienced based, senior employees perceive inconsistencies in reward system & hence dissatisfaction with the same.

Secondly, employees in the age group (25-35) have been found least satisfied with responsibility aspect of organizational climate. Whereas, employees in the age range of (35-45) and (45 & above) have been found to exhibit approximately same level of satisfaction with responsibility dimension. Thirdly, positive correlation has been discovered between motivational level and age. Younger employees have perceived motivational activities of company less favourably, whereas, senior employees have reported more favourable perceptions. This can be attributed to the fact

that employees in the age range of (25-35) includes mostly those who are on probation, whereas (35-45) & (45 & above) age groups include permanent & senior employees. So younger employees are not as much aware of the motivational activities undertaken by the company as the senior employees are.

Fourthly, positive correlation has also been observed between identity problems & age. Employees belonging to the age group (25-35) are satisfied & happy working in the company & they also identify themselves with the organizations. Whereas, organizational identification has been discovered to be least in employees belonging to the age group (45 & above). One probable reason for this is that, since employees in the age range (25-35) are either fresher's or less experienced, they are not well versed with task at their hand. They are intending to gain expertise in specialised skills. Whereas, employees in the age range of (45 & above) are already well settled and are looking for change, so they don't mind hopping jobs.

Levels of Employees and Organizational Climate

As can be seen from Table 3.2, no significant difference has been noticed among higher, middle and lower level employees, with respect to organizational climate. This signifies that, irrespective of the levels, all employees perceive organizational climate in the same manner.

Further, results of dimension wise analysis reveal that, higher, middle and lower level employees differ significantly, on 5 dimensions of organizational climate, namely, communication flow, reward system, motivational level, decision making process & identity problems. At 0.01 level of significance, F value for reward system (9.97), decision making process (8.25) & identity problems (4.96) has been found to be significant. Whereas, F values for communication flow (3.71) and motivational level (3.54) have been found significant at 0.05 level of significance.

Table 3.2: Comparison of OC and PWB based on Level of Employees

Variables	Age Group	Mean	SD	F Value
PWB	Higher	251.12	20.474	9.29**
	Middle	232.54	19.785	
	Lower	229.30	18.543	
	Total	237.25	21.556	
OC	Higher	248.52	36.868	2.37
	Middle	233.29	26.415	
	Lower	230.63	31.910	
	Total	237.15	32.363	

*Note: **Significant at 1% Level of Significance*

Findings reveal that higher level employees perceive communication process, decision making process & reward system more favourably, followed by middle level employees & lower level employees.

One reason for this is that, at higher level, communication system is more open, decision making process is participative and reward system is different from that of lower level employees. Higher level employees receive more and better incentives, allowances, housing, medical benefits. Although lower level employees also receive these benefits, they are not the same as those received by higher ups. Lower level employees are rarely active participants in decision making process. At the same time, they are kept informed only about major changes and events and not about minor daily happenings in the organization as are higher & middle level employees. Further, motivational level has been found to be high among lower level employees, followed by higher level & lastly middle level. This is probably because, organization undertakes more activities for motivating lower level employees because they are directly related to production. Organization attempts to motivate lower level employees more, so that problems like absenteeism don't pop up and productivity increases. Organizational identification has been found to be further high among lower level employees, followed by higher level and lastly middle level employees.

Tenure Wise Differences and Organizational Climate

As can be seen from Table 3.3, no significant difference has been observed in organizational climate as a result of job tenure (>5yrs, 5-10 yrs, 10-15 yrs, 15-20 yrs, < 20 yrs). However, results of dimension wise analysis reveals significant difference on 5 dimensions of organizational climate. F values for Performance standards (.089), Reward system (.026), Motivational level (2.64) and Support System (4.80) has been found significant at 5% and 1% level of significance respectively.

This implies that, support system and motivation in the organization varies as a function of job tenure. Whereas other aspects of organizational climate like communication, decision making, responsibility, conflict resolution, identity and organizational structure perceptions stand unaffected by job tenure.

Table 3.3: Comparison of OC and PWB based on Job Tenure

Variables	Age Group	Mean	SD	F Value
PWB	0-5 yrs	242.90	24.682	2.537
	5-10 yrs	234.70	8.341	
	10-15 yrs	235.64	25.645	
	15-20 yrs	228.00	17.329	
	20 yrs & Above	237.77	19.694	
	Total	237.25	21.556	
OC	0-5 yrs	234.13	24.788	1.976
	5-10 yrs	234.30	32.178	
	10-15 yrs	255.82	42.600	
	15-20 yrs	235.20	34.904	
	20 yrs & Above	233.00	35.700	
	Total	237.15	32.362	

Education and Organizational Climate

No significant difference has been observed in organizational climate as a result of education. F value of (.993) has turned out to be insignificant.

Table 3.4: Comparison of OC and PWB based on Education

Variables	Age Group	Mean	SD	F Value
PWB	8 th – 10 th	231.83	17.403	1.217
	10 th – 12 th	236.67	17.371	
	Graduation	237.71	22.926	
	Post Graduation	246.00	25.945	
	Total	237.25	21.556	
OC	8 th – 10 th	234.57	31.448	.993
	10 th – 12 th	254.44	31.879	
	Graduation	234.34	36.415	
	Post Graduation	237.31	19.661	
	Total	237.15	32.362	

Further, dimension wise analysis reveal that five dimensions of organizational climate differ significantly as a result of education level. F values for reward system (4.67) and identity problems (4.84) are being found significant at 1% level of significance. Whereas at 5% level of significance, F values for motivational level (2.98) and decision making process (3.09) have been found significant. Thus it can be inferred that, all the employees hold similar perceptions of organizational climate, irrespective of their education levels. But certain aspects of organizational climate like ones discussed above have been found to be influenced by educational level of employees.

Ha 4: Significant differences exist in Psychological Well Being as a result of age, level of employees, tenure and education.

Age and Psychological Well Being

As depicted in Table 3.1 no significant difference has been monitored with regard to psychological well being across different age groups. Out of six dimensions of psychological well being, significant difference has been noticed across three age groups only with respect to one dimension that is personal growth. F value for personal growth has been computed as 3.64, which is significant at 0.05 level of significance. Employees in the age group (25-35) exhibits highest desire to grow & develop, whereas employees in the age range (45 & above) expresses lowest desire for growth & development. One reason for this is that, since employees in the age range (25-35), are youth, they want to move up the ladder of success very fast. In this new era, youths prefer joining companies which value not only organizational growth but also individual growth. Because of competition, each one wants quick promotions & expertise in their respective fields. This is mostly the case with young employees, and is not much evident with senior

employees. Senior employees (45 & above) are well settled in their jobs & their main focus is not on personal growth as much on maintaining work-family balance.

Levels of Employees and Psychological Well Being

As can be seen from Table 3.2, significant difference has been found among higher, middle and lower level employees with respect to psychological well being. F value for psychological well being has been computed as .9.29 which is significant at 1% level of significance. Results of dimension wise analysis also reveal significant difference on all dimensions of psychological well being except for self acceptance. Psychological well being has been found to be high among higher level employees, followed by middle and then lower level employees. From this, we can infer that higher level employees are more self determining and independent, have sense of mastery and competence in managing environment, have feeling of continued development, has warm, satisfying, trusting relationship with others, has goals in life and a sense of directedness than middle & lower level employees. One probable reason for this is that, higher level employees have to face challenging situations, take decisions independently, maintain positive relations with subordinates, learn to accept their mistakes, as a part of their job. So repetitive confrontation with this must have ultimately resulted in upsurge in psychological well being. Whereas lower level employees have little exposure to these activities, since their work is directly related to production.

Tenure and Psychological Well Being

As can be observed from Table 3.3, No significant difference has been observed in psychological well being as a result of job tenure ($F = 2.537$). However, no significant difference is evident on any of its dimensions as well. Findings reveal that, employees with job tenure (>5 yrs) possess greater feelings of continued development, is open to new experiences, and is changing in ways that reflect more self knowledge and effectiveness, followed by (5-10 yrs), (10-15 yrs), and (20 yrs & above). Whereas, employees with job tenure of (15-20 yrs) have been found to be demonstrating less desire for personal growth. This indicate that employees belonging to this job tenure range, feel bored and unsatisfied with life, lacks sense of improvement or expansion over time, and feel unable to develop new attitudes or behaviours.

Education and Psychological Well Being

As can be seen from Table 3.4, educational level has been found to have little or no influence on psychological well being of employees. Dimension wise analysis has been done to investigate whether any dimension of psychological well being is being influenced by educational level. Significant difference has been observed among employees with different educational levels with respect to Personal growth. F value for personal growth has been computed as 9.08, which is significant at 1% level of significance. Feeling of personal growth & development has been found to be highest among employees with post graduation degree, whereas lowest among employees with matriculation. This implies that employees with higher educational qualifications have a feeling of continued development, sees self as growing and expanding and

are also open to new experiences. This might be probably because; employees with good educational qualifications are looking forward to apply their theoretical knowledge which they possess. They want to update their existing knowledge and are open to changes. Hence highly educated employees exhibit higher desire for personal growth.

RECOMMENDATIONS

Findings of the study have revealed a significant association between organizational climate and psychological well being. In the light of this finding, following recommendations can be implemented to make organizational climate positive and favourable as it will help improve psychological well being

- **Participative decision making:** Employees at all levels in the organization must be communicated to and consulted with on organization policies relevant to their positions. Employees at all levels should be provided with avenues of communication with management levels above theirs for the purpose of participating in decision making and goal setting.
- **Supportiveness:** An atmosphere of candour and supportiveness should pervade relationships within the organization, with employees being encouraged to say what's on their minds regardless of whether they are talking to peers, subordinates or superiors.
- **Openness in downward communication:** Except for necessary security information, members of the organization should have relatively easy access to information that relates to their jobs, that affects their abilities to coordinate work with other people or departments, and that deals broadly with the company, its organization, leaders and plans.
- **Listening in upward communication:** Personnel at all levels in the organization should listen with open minds to suggestions or reports of problems. Information from subordinates – upward communication – should be viewed generally as important enough to be acted on.
- **Enhancing motivation:** Organizations can provide an environment which is motivating. They can give their positive guidance which helps make people think positively and to take action to fulfil their needs and wants. Positive motivation persuades people and propels them into action. Regular orientation programmes can be conducted for employees to keep them motivated.
- **Trust:** Personnel at all levels should make every effort to develop and maintain relationships in which trust, confidence, and credibility are sustained by statement and act. This will help make employee feel secure and will eliminate identity problems.
- **Conflict resolution:** Organization should adopt relational approach to handling conflicts. While resolving conflicts organization needs to ensure that parties reach an amicable and satisfactory point of agreement and no one's emotions are hurt.

CONCLUSION

Thus it can be concluded that different aspects of organizational climate does exert significant influence on psychological well being. The results have also revealed significant difference in

psychological well being based on levels of employees. Significant differences have been noticed on certain dimensions of psychological well being and organizational climate based on age, level of employees, job tenure and education. From these findings we can infer that to improve the psychological well being of employees, organizations can work on improving certain components of its climate as clear link has been evident between these two constructs. These findings support findings of previous studies conducted by Mark, David, Dejoy, Robert (2004); Vandenberg, Hettie, Richardson, Allison, Mcgrath (2004) who also found that employees perceptions of their organization affect their perception of the climate, which affects the way people relate to their job and see their future in the organization, thereby impacting their work adjustment, health and well-being.

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Evaluation of Validity and Standardization in the Wechsler Computer Memory Package in Iranian Students

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ABSTRACT

Introduction: Today evaluations of psychological indicators have a non new found role on the process of psychological evolution. One of these important indicators is memory. **Purpose:** the current research has the purpose of indicating the right norm from the Wechsler's school memory sub-test software on girl and boy students studying at pre-university level in the city of Tehran in the 87-88 school year. **Procedure:** this research by nature is a descriptive study and of a survey and normalization type which has applicative aspects. For this purpose a sample of 370 people (N=370) consisting of 170 men and 200 women from between students at the pre-university level of the province of Tehran were selected by using multistage cluster sampling. To evaluate constructive validity and factorial structure of this test, factorial test was used and to compare the averages of the two groups (girl and boy) an independence t test was used. Also to calculate the final test coefficient from the internal consistency method calculation of Cronbach's alpha coefficient has been used and from the retest method calculation of Pearson's correlation coefficient between the scores obtained from two times performing the test has been used. **Findings:** the results obtained from the research showed between all of the 8 dimensions of Wechsler's memory in the space of two performance in the frame of retest a positive meaningful relation exists ($p < 0/0001$). Also the highest rate of correlation belonged to the reverse visual memory component ($r = 0/83$) and the lowest index of correlation belonged to the auditory memory span component ($r = 0/40$). Validation by using the retest method showed that between all the dimensions in the frame of two computer performance and a monthly retest a meaningful correlation exists among which the sum of the auditory memory ($r = 0/82$) had the highest correlation and the sum of the visual memory ($r = 0/53$) showed the lowest correlation. By using the independent t test comparison of the average score of boys and girls in the multiple memory dimensions showed that between the two groups considering the dimensions no meaningful difference exists ($p > 0/05$). **Conclusion:** the current research findings can be considered in the application areas and in the area of psychometrics it can open the path.

Keywords: *Wechsler memory, computer software, auditory memory, visual memory.*

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The term memory covers a general meaning and refers to that group of psychological processes which enables a person to store experiences and perceptions and remembering them again. Memory is one of the bases of learning, thinking, creativity, programming and our daily behavior. All of our social behavior needs memory such that a person without memory cannot interact with other people, perform family or ethnic traditions and customs and show their emotions (Ganji, 1997). For now evaluation of memory and determination of the type of dysfunction are among the most psychometric discussions and along the effort to understand the nature and processes of memory, effort in the innovation of tests of evaluation of memory have gained more speed (Faryar & Rakhshan, 1997).

Today many tests are used around the world. One of the most comprehensive and complete tests available for evaluation of memory is Weschler's scale of memory. But because this scale like most psychological tests has a nature in relation with culture, using them in testing of other nations needs passing the process of normalization. This scale has become a software in Iran and has been calculated by balanced table of norms. Now the need for normalization of this scale in a frame of computer package is felt more than before such that if performed in our country we could evaluate the ability of memory and intelligence with respect to the people of this society's average response. Therefore we are trying to normalize this test in the Iranian community. By considering the latter the purpose of the current research is the evaluation of validity and normalization of Weschler's memory subtest on a sample of pre-university girl and boy students of the city of Tehran.

METHODS

The current research by nature is a descriptive research (no experimental) and is of survey and normalization type which has applicational aspects. The sampling process in this study consists of two separate samples: a sample to determine validity and reliability of the final test and a sample to evaluate the retest correlation coefficient. With respect to the nature of the study and the use of factorial analysis method, a volume of sampling of 300 people for pre-university girl students and 350 people for pre-university boy students was determined. The clustering sampling method was used. On this basis the 22 areas of the province of Tehran were divided to 5 areas of south, north, east, west and central. Then 300 of pre-university girl students and 350 people among pre-university boy students were selected using the multistage clustering sampling. Before analysis the gathered data were evaluated so in case of possible defect, the data that had defect were removed. After evaluation of the data 370 people's data were selected for analysis and the gathered data were analyzed. In the first stage a sample of 39 people were selected randomly and a 90 question questionnaire was performed in order to calculate content validity and to evaluate the questions in terms of writing and understanding. In order to provide scientific and logical backup using library study of theoretical foundations about intelligence and memory inside and outside the country were gathered. After library study by using field method, the existing questionnaires were gathered so that by detailed evaluation and study of them, the

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position of the existing memory criteria were identified. In order to evaluate construct validity and factorial structure of this test, factorial test and to compare the averages of the two independent groups (boy and girl) the independent t test was used. To calculate the final coefficient of the test the internal consistency, meaning that Cronbach's alpha coefficient calculation was used and by the retest method, meaning that Pearson's correlation coefficient calculation was used among the scores obtained from two times performance of the test.

Tools

1. Computer package of Weschler's memory scale: the Weschler's memory test presents wide information in 7 areas: 1-general knowledge and personal information, 2-awareness of time and place, 3-mind control, 4-numerical memory, 5-evoking words, 6-auditory memory, 7-visual memory. Each of the mentioned criteria contains subtests. Grading of each criteria is done separately and according to different criteria and finally the total scores determine the total memory share. Calculation of the memory share is done by conversion of the score of each group to the average of 100 and standard deviation of 15. The maximum score that a person can obtain in this test is 96.

Statistical analysis

In the current study with respect to the nature of research and with the purpose of evaluation of construction validity and also factorial structure of Weschler's memory test software from the factorial test and for comparison of the averages of the testables with respect to the gender criteria independent t test was used. Also to evaluate the final coefficient of the test internal consistency method, meaning calculation of Cronbach's alpha coefficient and the retest method with calculation of Pearson's correlation coefficient among the obtained scores from two times performing the test were used.

RESULTS

The findings from the analysis of data in two parts, descriptive (the demographic distribution) and inferential (independent t test, Pearson's correlation test and Cronbach's alpha coefficient calculation) using the statistical software of SPSS version 19 were analyzed which are shown in the tables below.

Demographic features of participants

Table 1: Distribution of the Frequency of Participants according to gender

Gender	Frequency	Percent
Boy	190	51.4
Girl	180	48.6
Sum	370	100

As you can see in the table 1, 51.4% of the research participants consist of child boys.

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Auditory memory scores towards forward

Table 2: index of central tendency criteria and distribution of the auditory memory scores towards forward

	Mean	Median	Mode	Variance	standard deviation	range of changes	minimum	maximum
Computer performance	6.69	6	6	4.82	2.19	13	1	14
Computer re-performance	6.62	7	7	6.35	2.52	13	1	14
pen paper performance	6.61	6	6	6.67	2.16	12	1	13

As shown in the table 2, auditory memory scores average towards forward in computer performance is 6/69, computer rerun is 6/62 and in pen paper performance is 6/61 in which the computer performance scores average is more than the other two cases.

Reverse auditory memory scores

Table 3: index of central tendency criteria and distribution of the Reverse auditory memory scores

	Mean	Median	Mode	Variance	standard deviation	range of changes	minimum	maximum
Computer performance	6.83	7	7	7.50	2.74	14	0	14
Computer re-performance	6.88	6	7	8.37	2.89	13	1	14
pen paper performance	6.80	6	6	8.13	2.85	14	0	14

As shown in the table 3, the reverse auditory memory scores average in the computer performance is 6/83, in computer rerun is 6/88 and in pen paper performance is 6/80 in which the computer rerun scores average is more than the other two cases. Average scores of the three cases of performance in reverse auditory memory is more than the auditory memory scores average towards forward.

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Auditory memory total scores

Table 4: index of central tendency criteria and distribution of the Auditory memory total scores

	Mean	Median	Mode	Variance	standard deviation	range of changes	minimum	maximum
Computer performance	13.52	13	11	4.26	18.17	25	2	27
Computer re-performance	13.51	13	12	4.49	20.24	22	3	25
pen paper performance	13.29	12	12	4.42	19.58	24	3	27

As can be seen in the table 4, auditory memory total scores average in the computer performance is 13/52, in the computer rerun is 13/51 and in the pen paper performance is 13/29 in which the computer performance scores average is more than the other two cases.

Visual memory scores towards forward

Table 5: index of central tendency criteria and distribution of the Visual memory scores towards forward

	Mean	Median	Mode	standard deviation	Variance	range of changes	minimum	maximum
Computer performance	7.67	8	9	2.87	8.26	14	0	14
Computer re-performance	7.79	7	7	2.98	8.89	13	1	14
pen paper performance	7.66	7	7	3.01	9.10	13	1	14

As can be seen in the table 5, visual memory scores average towards forward in the computer performance is 7/67, in the computer rerun is 7/79 and in the pen paper performance is 7/66 in which the computer rerun scores average is more than the other two cases.

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Reverse visual memory scores

Table 6: index of central tendency criteria and distribution of the Visual Reverse visual memory scores

	Mean	Median	Mode	standard deviation	Variance	range of changes	minimum	maximum
Computer performance	8.44	9	9	3.11	9.70	14	0	14
Computer re-performance	8.23	9	9	2.71	7.37	12	2	14
pen paper performance	8.38	8	9	3.05	9.32	12	2	14

As can be seen in the table 6, the reverse visual memory scores average in the computer performance is 8/44, in the computer rerun 8/23 and in the pen paper performance is 8/38 in which the computer performance scores average is more than the other two cases. The reverse visual memory scores average is more than the visual memory scores average towards forward.

Visual memory total scores

Table 7: index of central tendency criteria and distribution of the Visual memory total scores

	Mean	Median	Mode	standard deviation	Variance	range of changes	minimum	maximum
Computer performance	16.12	16	16	3.76	14.19	20	5	25
Computer re-performance	16.02	16	15	3.63	13.23	22	3	25
pen paper performance	16.04	16	15	3.81	14.52	19	7	26

As can be seen in the table 7, visual memory total scores average in the computer performance is 16/12, in the computer rerun is 16/02 and in the pen paper is 16/04 in which the computer performance scores average is more than the other two cases. The visual memory total scores average is more than the auditory memory total scores average.

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Auditory memory span scores

Table 8: index of central tendency criteria and distribution of the Auditory memory span scores

	Mean	Median	Mode	standard deviation	Variance	range of changes	minimum	maximum
Computer performance	5.89	6	5	1.21	1.48	6	3	9
Computer re-performance	5.97	6	6	1.01	1.03	5	3	8
pen paper performance	5.75	6	6	1.29	1.67	7	2	9

As shown in the table 8, the auditory memory span scores in the computer performance is 5/89, in the computer rerun is 5/97 and in the pen paper performance is 5/75 in which the computer rerun scores is more than the other two cases.

Visual memory span scores

Table 9: index of central tendency criteria and distribution of the Visual memory span scores

	Mean	Median	Mode	standard deviation	Variance	range of changes	minimum	maximum
Computer performance	6.48	7	7	1.71	2.94	9	0	9
Computer re-performance	6.42	6	6	1.66	2.78	8	1	9
pen paper performance	6.38	6	6	1.51	2.28	9	1	10

As shown in the table 9, the visual memory span scores in the computer performance is 6/48 ,in the computer rerun is 6/42 and in the pen paper performance is 6/38 in which the computer performance scores average is more than the other two cases. The visual memory span scores average is more than the auditory memory span scores average.

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Pearson's correlation coefficients in the two computer and paper performance

Table 10: Pearson's correlation coefficients

	Index	correlation	Coefficient of Determination	Sig.
1	forward Auditory	0.69	48	0.000
2	Reverse auditory	0.78	61.7	0.000
3	Auditory memory total	0.70	49.9	0.000
4	forward Visual	0.75	56.5	0.000
5	Reverse visual	0.83	70	0.000
6	Visual memory total	0.73	53.5	0.000
7	Auditory memory span	0.40	16.2	0.000
8	Visual memory span	0.65	42.2	0.000

As is seen in the following table 10, in the performance of the parallel method, in the total scores and subscales, the least correlation has been 0/40 (auditory memory span) and the most correlation has been 0/30 (reverse visual memory), the other correlation coefficients also have been between 0/40 and 0/83. In the case of the degree of correlations also in the reverse visual memory, it is very high, in the auditory memory span, it is medium and in the other scores high correlation is seen. Also the amount of the level of meaning fullness calculated in the meaningful tests has a correlation coefficient of less than 0/01 on the basis of which the coefficients calculated are meaningful. Therefore these scores obtained from the test of computer performance with the pen paper performance scores have had meaningful correlation in the level of medium, high and very high and this indicates the high validity of the computer software.

The t test related to the evaluation of the meaningful relation

In this section the meaningfulness of the difference between the two computer and pen paper performances has been evaluated. The table below shows the findings related to the correlated t test.

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Table 11: difference between the two computer and pen paper performances

Index	Computer performance	Mean	standard deviation	Means difference	T	df	Sig.
forward Auditory	Primary performance	6.69	2.19	0.08	0.88	369	0.37
	secondary performance	6.61	2.16				
Reverse auditory	Primary performance	6.83	2.74	0.03	0.31	369	0.75
	secondary performance	6.80	2.85				
Auditory memory total	Primary performance	13.52	4.26	0.23	1.34	369	0.18
	secondary performance	13.29	4.42				
forward Visual	Primary performance	7.67	2.87	0.01	0.10	369	0.92
	secondary performance	7.66	3.01				
Reverse visual	Primary performance	8.44	3.11	0.06	0.67	369	0.49
	secondary performance	8.38	3.05				
Visual memory total	Primary performance	16.12	3.76	0.07	0.50	369	0.61
	secondary performance	16.04	3.81				
Auditory memory span	Primary performance	5.89	1.21	0.13	1.85	369	0.06
	secondary performance	5.75	1.29				
Visual memory span	Primary performance	6.48	1.71	0.10	1.41	369	0.15
	secondary performance	6.38	1.51				

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The results of the table 11 show that in neither of the indices meaningful difference between the computer performance scores and pen paper performance has not been seen.

Finding validity by using the retest method

After the computer performance of the test, the testable with a span of one month from the computer test, were re-evaluated. The table below shows the level of correlation between the re-testing.

Table 12: level of correlation between the re-testing

	Index	correlation	Coefficient of Determination	Sig.
1	forward Auditory	0.69	48	0.000
2	Reverse auditory	0.78	61.7	0.000
3	Auditory memory total	0.70	49.9	0.000
4	forward Visual	0.75	56.5	0.000
5	Reverse visual	0.83	70	0.000
6	Visual memory total	0.73	53.5	0.000
7	Auditory memory span	0.40	16.2	0.000
8	Visual memory span	0.65	42.2	0.000

As is seen in the table 12 in the rerun, the reverse visual memory had the least correlation (0/61) and auditory memory had the most correlation of 0/80 and the other correlation coefficients are also between 0/61 to 0/82. In the case of the degree of correlations also, the auditory memory total scales and the auditory memory toward forward have very high correlation and in the other scales are at a high level. Also the amount of the level of meaningfulness calculated in the meaningful tests the correlation coefficient has been less than 0/01 which on this basis the coefficients calculated is meaningful. Therefore the scores obtained from two times performance of the computer test in a span of 1 month, show a meaningful correlation at a very high level and high which this has been indicative of the high validity of the computer software.

The t test in the computer rerun

The difference between computer rerun scores was evaluated by the related t test which is shown in the table below.

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Table 13: The *t* test in the computer rerun

Index	Computer performance	Mean	standard deviation	Means difference	T	df	Sig.
forward Auditory	Primary performance	6.69	2.19	0.07	0.95	369	0.34
	secondary performance	6.62	2.52				
Reverse auditory	Primary performance	6.83	2.74	-0.05	-0.44	369	0.65
	secondary performance	6.88	2.89				
Auditory memory total	Primary performance	13.52	4.26	0.02	0.12	369	0.90
	secondary performance	13.51	4.49				
forward Visual	Primary performance	7.67	2.87	-0.12	-0.96	369	0.33
	secondary performance	7.79	2.98				
Reverse visual	Primary performance	8.44	3.11	0.21	1.58	369	0.11
	secondary performance	8.23	2.71				
Visual memory total	Primary performance	16.12	3.76	0.10	0.52	369	0.60
	secondary performance	16.02	3.63				
Auditory memory span	Primary performance	5.89	1.21	-0.08	-1.65	369	0.09
	secondary performance	5.97	1.01				
Visual memory span	Primary performance	6.48	1.71	0.06	0.77	369	0.43
	secondary performance	6.42	1.66				

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The table 13 results show that in neither of the indices, there are no meaningful difference between the computer rerun scores.

Standard table (norm)

Before calculations related to the norm in order to specify the need for independent norm tables to differentiate gender, eight fold scores obtained in the group of girls and boys was compared. The table below shows the comparison of the average scores of girls and boys in the first computer performance.

Table 14: comparison of the average scores of girls and boys in the first computer performance

Index	Groups	Mean	standard deviation	Means difference	T	df	Sig.
forward Auditory	boy	6.54	2.15	0.07	-1.37	369	0.17
	girl	6.85	2.23				
Reverse auditory	boy	6.65	2.49	-0.05	-1.33	369	0.18
	girl	7.03	2.97				
Auditory memory total	boy	13.18	4.92	0.02	-1.56	369	0.11
	girl	13.88	4.57				
forward Visual	boy	7.73	3.03	-0.12	0.40	369	0.68
	girl	7.61	2.70				
Reverse visual	boy	8.53	2.96	0.21	0.56	369	0.57
	girl	8.35	3.27				
Visual memory total	boy	16.26	3.64	0.10	0.77	369	0.44
	girl	15.96	3.89				
Auditory memory span	boy	5.84	1.20	-0.08	-0.80	369	0.42
	girl	5.94					
Visual memory span	boy	6.45	1.22	0.06	-0.41	369	0.67
	girl	6.52	1.70				

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The findings in table 14 show that in all cases, meaningful difference between the scores of girls and boys in the first computer performance has not been seen therefore calculation of a separate norm is not needed.

DISCUSSION

The study considered, was a research in direction of evaluation of psychometric characters and normalization of Weschler's memory test software form in Iranian students. The results from the research showed that among all the eight fold dimensions of Weschler's test in terms of validity of retrieval, there is a positive meaningful relation. About the correlation coefficients obtained we can acknowledge that between all the dimensions in the frame of two computer performances and the rerun in one month a meaningful correlation existed, also the highest level of correlation belonged to the auditory memory and the lowest level of correlation belonged to the visual memory index.

On the other hand between the results obtained from the two groups of boys and girls meaningful differences were not seen. With regards to the survey from professors and specialists related to content validity and reliability calculated for the scale, we can say that the computer package is a credible software to measure students' memory. The results of this study is in line with some of the researches. Therefore people in some of these dimensions have more efficient memory and in some dimensions have weaker performance which is in accordance with Richard and vilkuiz (1990). They performed and showed three factors of memory dimension among children such that people are stronger in one dimension of memory than in the other dimensions which shows that people are not the same in different dimensions (auditory memory towards forward, reverse auditory memory, visual memory towards forward, reverse visual memory, auditory memory span and visual memory span).

This research is also in line with researches done by Shahim (1992) which performed the correlation between the revised form of Weschler's intelligence scale for children and Weschler's intelligence scale for preschool and kinder garden children for Iranian children. The results of this research showed that between girls and boys in neither dimensions of memory in a meaningful level no meaningful differences existed which shows that existence of memory is not influenced by demographic characteristics including gender. In a general view we can deduce that the computer software is a suitable tool for evaluation of students' memory and compared to pen paper tests it has more ability in interpretation of their intelligence and memory and has considerable validity and reliability and we can use this software in place of pen paper tests.

RESEARCH LIMITATIONS

This study in the process of performance has had limitations, some of these limitations consisted of: limited sample case under research was one of the obstacles, therefore extension of the results

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should be done carefully. In addition lack of sufficient past research was other research limitations.

SUGGESTIONS

For the reason of importance of valid standard tools, it is suggested that this questionnaire be normalized at different cultural-social conditions and more widespread level. It is necessary that the current scale with the assistance of other researches and in different societies be repeated with the purpose of validity and normalization.

Acknowledgments

The author appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interests

The author declared no conflict of interests.

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A Comparative Study to See the Impact of Yoga on Educational Aspiration (EA) and Test Anxiety (TA) among College Going Girls

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ABSTRACT

A little bit of anxiety is normal; in fact, just like salt in the food, it is needed so that we remain disciplined, focused and aspired. The problem starts when this anxiety becomes so persistent as to start interfering with our daily life, and this is where yoga can help. The major aim of this research study was to explore the effect of yoga on educational aspiration and test anxiety of girls at the junior college level. A sample of 60 college going girls (age 17-18 years) was selected purposely from Nagpur, India. Data were collected by using the Educational Aspiration Scale (EAS) by V. P. Sharma and Test Anxiety Scale (TAS) developed by Sarason and Sarason. Student's paired t-test was applied for data analysis. It was found that a significant difference exists between two groups. Results showed that practice of yoga in a day to day life contributes significant enhancement of educational aspiration and considerable reduction of test anxiety. Therefore, it was concluded that making yoga a part of one's routine would help students in dealing with test anxiety and improving their aspiration towards education.

Keywords: *Educational aspiration, Test anxiety, Yoga.*

India as a developing country wants to increase the production and consequently aspires for advancement in science. It is the young generation, which has to shoulder its responsibility and take the nation ahead in all fields. As Emir has quoted in his speech; "the time has come to turn a new leaf in the history of our nation, where a new generation steps forward to shoulder the responsibility with their dynamic potential and creative thoughts".

In 1916, Stanley Hall, the father of adolescent research proclaimed adolescence as a period of "storm and stress". It is a time of considerable changes in physical stature, physiological and endocrine changes and also changes in patterns of thinking and moral standard. It is a time of acquiring new skills, attaining mastery over environment, learning to handle new responsibilities

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and gaining control over emotions and thoughts. Pandit Nehru has clearly stated, “The leaders of India’s tomorrow will come out of the students of today” Patil (2011).

This has increased the responsibility of parents and educational institutions to train the new generation to take on new responsibilities. A developing society needs to create individuals who are physically as well as mentally healthy to meet the standards of excellence.

In today’s world, education is a necessity, and for that reason, it has assumed an increasingly important role in future plans, especially for young people. During the educational process people gain necessary skills and competencies to be able to function on different competitive markets. Education, if looked at beyond its conventional boundaries, forms the very essence of all our actions. Educational aspiration reflects educational goals an individual sets for himself/herself. It is important as it encourages and energizes the individual to achieve them.

Now days, college has become stressful. It has caused a hectic life of attending classes, making notes, doing homework, and taking those dreaded exams. A 2011 National survey shows that more than 62% of students who withdrew from college were suffering from anxiety disorders. Test anxiety is the uneasiness, apprehension, or nervousness felt by students who had fear of failing an exam. Sweating, dizziness, headaches, racing heartbeats, nausea, fidgeting, and drumming on a desk are all common.

“Stress” is an outcome of modern lifecycle. It is produced out of dissatisfaction, frustration, and dejection when there is negative interaction between the self projection and the adverse internal as well as external environmental conditions. The goal of human life is opening, blossoming and playing, i.e. to explore all the possibilities within us, which is possible through yoga and meditation.

Yogic practices can help one in this respect by establishing and maintaining physiological balance in the body. Proper lifestyle including moderate exercise, proper diet, enough sleep, relaxation and positive thinking will definitely maintain the homeostasis and thus physical and mental health. Yoga is a great gift that has its origin in Indian civilization. The word Yoga means yoke or union; it is the union or integration of physical, emotional, mental and spiritual life. Yoga is thus disciplined way of achieving union or alignment with a higher state of consciousness. Gore (2011) cites the aim of yoga as to unite the mind, the body and the spirit.

Yoga says that we need to transcend the part of the mind and the feelings that are dominated by external sensations and their resulting thoughts and memories, in order to reach the deeper level of intelligence and consciousness that are connected with the soul. In the words of Amy Reed, the health benefits of yoga are also great and varied. From relieving stress to strengthening and

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toning muscle, integrating yoga positions and exercises into a daily routine can be beneficial on many levels.

Yoga is a part of the Indian lifestyle. Real comfort lies in good health. Disease free condition and contentment at the level of mind are essential components of happiness.

Aims and Objectives

- To study the educational aspiration (EA) of college going girls.
- To analyze the test anxiety (TA) of college going girls.
- To evaluate the impact of Yoga on educational aspiration and test anxiety of college going girls.

Hypothesis

- There exists significant difference in educational aspiration and test anxiety between yogic group and non-yogic group of college going girls.

METHODOLOGY

Sample

- Class: College going
- Age group: 17-18 years
- Gender: Female
- Demography: Urban

Sample size

- Total sample size: 60
- Group 1: 30
- Group 2: 30

Groups

- i. Group 1: Yogic group
- ii. Group 2: Non-Yogic group

Tools

For the present work the standardized tool used were:

- Educational Aspiration Scale by Dr. V. P. Sharma.
- Test Anxiety Scale by Sarason and Sarason

Method and Procedure

Thirty girls who practice yoga in their daily routine (Group 1: Yogic group) were contacted and the above psychological tests were conducted on them. Whereas remaining 30 girls who were not in practice of yoga in their routine (Group 2: Non-Yogic group) were randomly selected from one of the colleges of Nagpur.

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The data collected through the above scale was subjected to statistical analysis and initially mean and standard deviation were drawn out. Student's paired test was applied to find out the difference between two groups. The paired t- test is used to compare two population means where you have two samples in which observations in one sample can be paired with observations in other sample.

Ethical Considerations

Verbal consent for participating in the research was obtained. Participants were explained the purpose of conducting research and were informed about privacy and confidentiality of the data collection.

STATISTICAL ANALYSIS

Struwig and Stead (2007) explained that sometimes it is difficult to make sense of the raw data. In most cases the data is often large and it is difficult to make connection between pieces of information. In order to make sense of the raw data, it is first necessary to summarize it by coding it and analyzing it through a certain program which might be qualitative or quantitative analysis program.

The present study was intended to compare the effect of yoga on test anxiety and educational aspiration of college going girls. Yoga was treated as independent variable whereas test anxiety and educational aspiration were treated as dependent variables.

Initially the data was subjected to descriptive statistical techniques – mean and standard deviation for both the variables. The values are displayed in table no.1.

Table No.1: Mean and SD of the variables:

Paired Samples Statistics				
		MEAN	N	SD
YOGIC Group	EA	41.5	30	10.9
	TA	12.3	30	2.8
Non-YOGIC Group	EA	35.03	30	10.5
	TA	24.5	30	3.3

Examination of the above table no.1 reveals that the data is distributed normally. This could be verified from the SD's associated with the means.

The mean score for the measurement of educational aspiration of the college going girls performing yogic practices clearly signifies their stand on percentile P₇₅ whereas those not practicing yoga stood on percentile P₆₀. Further glance to the mean scores exhibited lower level of test anxiety in the college going girls practicing yoga in their daily routine.

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However, it is not possible to infer confidently only on the basis of descriptive statistics. Hence the data was subjected to paired 't' test. The values are displayed in table no.2

Table No.2: Mean, SD and t-value of Educational Aspiration (EA) and Test Anxiety(TA) of the College going girls:

	Paired Differences				
	\bar{X}	SD	t	df	Sig. (2-tailed)
EA Scores	6.47	0.4	14.69	29	(p<0.0001)
TA Scores	-12.2	-1	2.33	29	(p<0.01)

Table no. 2 reveals that the computed t- value for both educational aspiration as well as test anxiety is considered to be extremely statistically significant.

RESULTS AND DISCUSSION

The present study was undertaken with a sensible thought that large population of adolescents have been gripped with mental health problems like stress, anxiety, and resulted into lowering of concentration level and academic performance. The students who are in their adolescent age undergo many physical and psychological changes and experience a lot of stress in their critical period of life.

Based on the findings of t-ratio, a significant positive effect of performing yoga on the level of educational aspiration as well as test anxiety was observed i.e. test anxiety was found to be lesser in college girls practicing yoga as compared to those who are not in practice of yoga in their daily routine. The results further revealed significant and encouraging impact of following yoga on the enhancement of educational aspiration.

Implications:

The present study develops interest among educationists, researchers and teachers to implement yogic practices at each level of education and scheduling of such training in the curriculum. It is also helpful for solving the psychological problems of adolescents and reducing the suicidal cases that are enhancing in the present scenario due to cut throat competitions, parental pressure, examination phobia, etc.

Limitations of Study:

1. The present study was conducted on female students only. Study can be undertaken on male students.
2. In the present study, subjects from colleges of urban area were selected. Study can be undertaken on colleges from sub-urban and rural area.
3. The present study was conducted on college going girls to compare the impact of yogic practices on educational aspiration and test anxiety. The study can be undertaken on other

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variables like overall mental health, physical health and others similar related psychological and physiological states.

4. The sample size was limited to 60 college going girls only. It can be increased for better results.

Acknowledgments

I express my sincere thanks and indebtedness towards my Guide for her scholarly guidance and inspiring suggestions in carrying out my research work. My heartfelt gratitude towards the participants for providing valuable cooperation and help in the course of data collection. Lastly, I gratefully acknowledge the support of my family.

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Edited, Printed and Published by RED'SHINE Publication. (India) Inc.
on behalf of the RED'MAGIC Networks. Inc. (www.redmac.in)

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